SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1954

No. 162

UNITED STATES OF AMERICA, APPELLANT

vs.

E. I. DU PONT DE NEMOURS AND COMPANY

APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

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54	4/7/41, Ward Baking Co. Trade Report	127	4284
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56	11/24/41, Bulletin—Variety Bread Situation	130	4287
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110	11/16/39, Paper Trade Journal Article—Frozen Foods	240	4395
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113	11/16/45, W. J. Harte to R. J. Crowley	245	4400
114	Jan. '49, Protective Packaging of Frozen Foods Article	246	4401
115	Nov. '46, Extract—Frozen Foods Sales Test	250	4405
116	Sept. '48, Locker Management Article—What are the Better Wraps? What do they cost?	258	4413
117	1/26/48, A. D. Atterbury Co. Trade Report	262	4417
118	1/21/48, Snow Crop Marketers Trade Report	263	4418
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130	June '49, OFF's Annual Packaging Review	279	4434
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137	Aug. '48, Modern Packaging Article—Produce Film Comparisons	292	4447
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143	5/10/50, J. J. Beaton Co. Trade Report	302	4457
144	11/18/49 letter, C. A. Quinlan to M. Callender	303	4458
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148	2/18/48, Buffet Potato Chip Co. Trade Report	318	4470
149	8/3/48, Fritos Co. of Calif. Trade Report	319	4471
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158	10/7/48, Ark. Rice Growers Co-op. Trade Report	331	4482
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161	8/31/48, La. State Rice Milling Co. Trade Report	335	4485
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169	July 1948, Modern Packaging Article—Dried Fruits	343	4493
170	Dec. 1949, Good Packaging Article—Saran for Prunes	346	4496
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172	10/27/48, Albers Super Markets Trade Report	351	4501
173	6/6/49, Great A. & P. Tea Co. Trade Report	352	4502
174	12/13/40, Busalacchi Bros. Trade Report	355	4505
175	Aug. 1940, Food Industries Article—Pliofilm for Meat, New Wrapper Solves Problem for Packers	356	4506
176	1/2/48, Wm. Temple Co. Trade Report	359	4509
177	3/22/33, A. J. Kasper Co. Trade Report	360	4510
178	8/13/47, Colonial Coffee Co. Trade Report	361	4511
179	8/5/48, Colonial Coffee Co. Trade Report	362	4512
180	8/11/48, Horlick's Malted Milk Trade Report	363	4513
181	12/23/48, Duncan Coffee Co. Trade Report	364	4514
182	9/19/39, Chr. Hansen's Lab Trade Report	365	4515
183	5/22/40, Experiment—Cake Mix in Cellophane	366	4516
186	9/21/42, Taylor Reed Trade Report	375	4522
187	8/25/33, Northwestern & East Trade Report	376	4523
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192	5/19/32, Package Changes Submitted to Cigarette Companies	383	4530
193	7/18/34, Experiment—Cigarette Wrapping Materials	385	4532
194	7/16/37, Bulletin—Foil on Cigars	395	4542
195	8/2/37, Experiment—Foil v. Cellophane as a Cigar Wrap	398	4545
196	5/3/38, Bulletin—Cigar Protection	405	4552
197	1/13/39, Scotten-Dillon Co. Trade Report	407	4554
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199	2/27/39, Webster Eisenlohr Trade Report	411	4558
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202	6/21/39, Crimson Coach Trade Report	417	4564
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205	12/2/46, W. J. Harte to R. J. Crowley et al	424	4571
206	2/4/48, Brown & Williamson Trade Report	425	4572
207	Mar. 1948, Modern Packaging Article—Foil for Cigarettes	427	4574
208	6/25/48, Brown & Williamson Trade Report	433	4580
209	5/4/49, S. Frieder & Sons Trade Report	434	4581
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216	2/21/49, Pepperell Mfg Co. Trade Report	445	4592
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218	No date, Modern Packaging Ad—Lumarith	448	4595
219	5/8/31, Dwyer Paper Prod. Trade Report	449	4596
220	2/11/41, Marathon Paper Mills Trade Report	450	4597
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232	11/21/31, Aqualeen Ad	465	4610
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235	Aug. 1933, Modern Packaging Ad—Wrapping Machinery	468	4613
236	Sept. 1933, Modern Packaging Ad—Wrapping Machinery	469	4614
237	May 1934, Modern Packaging Ad—Wrapping Machinery	470	4615
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239	June 1934, Shellmar Products Ad—Shell-Pax	472	4617
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241	Mar. 1939, Food Industries Ad—Cellophane for Frozen Foods	475	4620
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246	June 1940, Riegel Paper Ad—Diafane	480	4625
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248	Feb. 1941, Goodyear Pliofilm Ad	482	4627
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278	Jan. 1959, Packaging Parade Ad—Pliofilm	512	4657
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285	(No date) Saran Ad	519	4664
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287	Nov. 1940, Modern Packaging, Aluminum Foil Ad	523	4668
288	Jan. 1941, Modern Packaging, Sylvania Cellophane Ad	524	4669
289	Jan. 1930, Food Industries Article—Packaging Materials	525	4670
290	Mar. 1935, Food Industries Article—Wrappings	536	4681
291	8/5/37, Extract—Nat. Bureau of Standards Publication Permeability of Membranes to Water Vapor	539	4684
292	(No date), Modern Packaging Encyclopedia—Metal Foils	545	4690
293	May 1944, Modern Packaging Article—Vegetable Parchment	549	4694
294	Nov. 1945, Modern Packaging Article—Glassine	555	4700
295	1947, Paper Year Book Article—Waxed Papers	559	4704
296	1947, Paper Year Book Article—Glassine and Greaseproof	562	4707
297	1947, Paper Year Book Article—Bag Stock	567	4712
298	8/13/24 letter, O. F. Benz to M. du P. Lee	570	4715
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301	9/5/24 letter, O. F. Benz to All Salesmen	576	4721
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304	1/13/28 letter, O. F. Benz to Pickens	585	4726
305	1/10/28 letter, J. S. Ellithorp to O. F. Benz	586	4727
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310	12/7/31 letter, E. K. Gladding to L. A. Yerkes	595	4736
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328	12/13/44 letter, C. L. Blair to W. J. Harte	634	4775
329	2/24/45 letter, R. J. Crowley to W. J. Harte	635	4776
330	8/14/45 letter, L. B. Steele to M. C. Pollock, et al	636	4777
331	1/6/47 letter, A. Kunsman to P. H. Gabriel, et al	637	4778
332	3/13/47 letter, C. F. Brown to T. L. Hines	638	4779
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334	7/8/49 letter, C. A. Haley to A. Kunsman	640	4781
335	1950, Chart—Development of du Pont Cellophane Related to Tariff & Basic Moisture-proof Cellophane Patents 1924–1950	641	4782
336	1950, Table—Du Pont Cellophane—Average Annual Selling Prices	642	4783
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341	8/15/27, Announcement of du Pont Price Reduction	655	4796
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349	3/2/31, Announcement of du Pont Price Reduction	664	4805
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354	5/14/34, Announcement of du Pont Price Reduction	669	4810
355	6/19/34, Extract from President's Report to Board	670	4811
356	1/22/35, Extract from President's Report to Board	671	4812
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366	Nov. 1939, Extract—Monthly Report of Cellophane Division	684	4825
367	11/27/40 letter, J. E. Hatt to L. B. Steele	685	4826
368	4/28/41, Announcement of discontinuation of cash discount and decrease in gauge—du Pont	688	4829
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370	12/30/46, Announcement of du Pont One Price Policy	692	4833
371	2/7/47, Extract from Monthly Sales Report	693	4834
372	6/27/47, Extract—Rayon Dept. Report to Ex. Comm	695	4836
373	8/22/47, Announcement of du Pont Price Changes and enclosures	697	4838
374	1/26/48, Extract—Rayon Dept. Report to Ex. Comm	703	4844

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378	6/22/48, Prices of Packaging Materials	708	4849
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380	4/1/49, H. C. Broems to F. Tilney	710	4851
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384	8/25/50, Announcement of Increase in Converter Discount by du Pont	714	4855
385	8/25/50, Announcement of du Pont Price Changes	715	4856
386	1924–1950, Table—Du Pont Cellophane Production Statistics	716	4857
387	1950, Table—Du Pont Cellophane Technical Activities Expense	717	4858
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391	10/17/24 letter, E. B. Benger to O. F. Benz	725	4862
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812	1/12/41 letter, H. D. Schemtob to E. I. du Pont Co	1714	5507
813	4/8/41 letter, G. H. Andrews to H. D. Schemtob	1715	5508
814	3/26/41 letter, G. H. Andrews to E. F. J. Nater	1717	5510
815	5/27/41 letter, W. D. Lauerman to G. H. Andrews	1720	5512
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819	6/20/41, Mees e Hijos Letter	1724	5516
820	10/1/41 letter, R. J. Black to G. H. Andrews	1725	5517
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825	11/14/47, letter, G. H. Andrews to J. Cheung	1766	5526
826	12/18/47, Du Pont Invoice to On Lok Yuen Co	1767	5527
827	11/15/47, letter, G. W. Sohlberg to E. I. du Pont Co	1768	5528
828	5/7/48, letter, Du Pont Invoice to G. W. Sohlberg	1769	5529
829	10/7/47, letter, Fabrica Ultramarina to E. I. du Pont Co	1770	5530
830	11/12/47, letter, G. H. Andrews to Fabrica Ultramarina	1771	5531
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833	1/5/48, letter, E. A. Wight to W. N. McLennan	1774	5534
834	5/9/48, letter, Date Association to E. I. du Pont Co	1775	5535
835	5/20/48, Du Pont Invoice to Date Association	1777	5537
836	5/19/48, letter, Irma Food Factories to E. I. du Pont Co	1778	5538
837	10/5/48, report, C. F. Brown to J. E. Dean	1779	5539
838	10/29/48, letter, G. de Wulf to E. I. du Pont Co	1780	5540
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840	11/11/48, letter, Du Pont Invoice to Papeteries Vencedor	1783	5543
842	12/14/48, letter, S. A. Cellpack to E. I. du Pont Co	1785	5544
843	12/3/48, Du Pont Invoice to S. A. Cellpack	1786	5545
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845	5/18/49, Du Pont Invoice to Motta S. P. A	1788	5547
846	5/18/49, Du Pont Invoice to Motta S. P. A	1789	5548
847	5/19/49, letter, S. L. Seaman to G. H. Andrews	1790	5549
848	5/18/49, Du Pont Invoice to Seaman & Seaman	1791	5550
849	5/18/49, Du Pont Invoice to Seaman & Seaman	1792	5551
850	8/29/49, letter, Heintz Van Landewyck to G. H. Andrews	1793	5552
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852	10/11/49, Du Pont Invoice to Heintz Van Landewyck	1795	5554
853	10/28/49, letter, F. Thrane to G. H. Andrews	1796	5555
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860	8/7/34, letter, J. K. Jenny to London Office	1807	5561
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997	11/10/50, letter, T. A. Torrence, Aluminum Co. of America, to Heller Associates, showing production of aluminum foil for the years 1938–1949	2058	5655
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1015A	Printon letter to Sylvania, dated /17/50	2386	5918
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1020A, B, & C	Rhinelander Price Sheets	2508	6041
1021	Summary of Deposition (Leo Croy, Marathon Corp.)	2514	6047
742	September, 1923, Smith-Cullen Report on Manufacture of Cellophane at Bezons, France	2533	6062

GOV'T EXHIBIT NO. 1
Civil Action 1216

Copy: Mr. M. Keller

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE

RAYON DEPARTMENT
COMPRISING
ACETATE DIVISION
"CELLOPHANE" DIVISION
NYLON DIVISION
RAYON DIVISION

February 19, 1944.

Dr. F. Sparre, Director,
Development Department,
WILMINGTON.

CELLOPHANE

The memorandum which Walter Richards and Manfred Keller have been working on for the past several days is an accurate collection of facts which I understand is what Joslin wants.

It seems to me this memorandum should be approved by the Legal Department before it goes into our files, and furthermore I understand you will notify Joslin in writing that no part of this is to be published without further consultation.

L. A. Yerkes

LAY-ML

C-6482

Return to files of M. Keller- Rayon Dept. [redacted]

MEMORANDUM

February 17, 1944

TO: P. SPARRE, DIRECTOR

FROM: W. W. RICHARDS

CELLOPHANE

The Comptoir des Textiles Artificiels is a French corporation which in 1919 had its principal office in Paris and was associated with various corporations in France, Switzerland, Belgium and Italy engaged in the manufacture of artificial silk (rayon) by the viscose process. During that year (1919) du Pont had discussions in Paris and in the United States with officials of the Comptoir regarding the manufacture of viscose rayon in the United States, resulting in contractual relations becoming established early in 1920, subsequent formation of the Du Pont Fibersilk Company as a joint venture (the French interest since acquired by du Pont) and erection of the first plant by Du Pont Fibersilk at Buffalo, N.Y., followed by additional plants there and at other locations as need for these developed.

During the period of earlier relations with the Comptoir on viscose rayon, the attention of one of the du Pont representatives then in Paris (about June/July 1919) was called by the Comptoir to a transparent viscose film, known as cellophane, being manufactured by one of its associated companies -- La Cellophane, Societe Anonyme (Societe La Cellophane). Information then available regarding this product was obtained for preliminary consideration by the du Pont Company should it at some later time wish to entertain the acquisition of rights for the production of cellophane in the United States.

An option agreement between the du Pont Company and the French interests relative to the possible acquisition of the cellophane rights for North and Central America was executed on January 6,

C 6481

1923. In accordance with the terms of this agreement du Pont sent a commission to France to study and investigate the process and requirements for cellophane manufacture.

On June 9, 1923 and partly in accordance with provisions of the option agreement, an agreement was executed by du Pont and the French interests providing for formation by them of the Du Pont Cellophane Company, Incorporated, for the purpose of manufacturing and selling cellophane in North and Central America. For its contribution of cash to this undertaking the du Pont Company received a 52 per cent interest in the voting common stock of Du Pont Cellophane and the remaining 48 per cent of this stock was issued to the French interests for cash and the transfer to Du Pont Cellophane of their full right, title and interest in and to trade marks, patents, patent rights (including pending applications), processes, data, knowledge, information, etc. governing, affecting or in any manner pertaining to the manufacture and/or sale of cellophane in North and Central America. The French group was obligated to counsel and assist Du Pont Cellophane in connection with any subsequent or additional patent applications and to cooperate and assist in obtaining the highest possible degree of protection to the patent rights, trade-marks, etc. throughout North and Central America. Provision also was made for Du Pont Cellophane to become sole selling agent in North and Central America of Societe La Cellophane (which then was exporting from France to another sole selling agent in the United States) with right to purchase cellophane from Societe La Cellophane in any amount up to a stated maximum quantity (not exceeding an average rate of 500 kilos per day) pending completion and operation at 2,500 pounds production per day of the cellophane plant, having an estimated daily production capacity of at least 3,000 pounds, which it was provided was to be built at Buffalo.

C-6481

It was stated in the agreement to be the understanding and intention that it should operate to transfer to Du Pont Cellophane an unqualified, unrestricted and exclusive right to use all and every process owned by the French cellophane interests or which they thereafter might acquire in connection with the manufacture of cellophane, excepting any process affecting the manufacture of cellophane which they might acquire by purchase from outside interests; it was provided in this agreement and clarified in the agreement of December 26, 1923, summarized below, that in such an instance the French shall use their best efforts to enable Du Pont Cellophane to acquire such rights for North and Central America on most favorable terms. It was provided further that Du Pont Cellophane shall have the exclusive right to manufacture cellophane in North and Central America to be used for any purpose whatsoever. Thus Du Pont Cellophane became full and complete owner of the cellophane business in North and Central America.

The agreement also provided that neither party should, prior to December 31, 1935, except by or through Du Pont Cellophane, engage in or become directly or indirectly interested in any other business or enterprise on the North American continent, or in Central America, engaged in the manufacture of cellophane, either as stockholder, principal or agent, or in any other capacity.

The French agreed to furnish Du Pont Cellophane all necessary information to enable the latter to proceed with the construction and operation of the plant at Buffalo and to enter into the business of the manufacture and sale of cellophane, also to furnish at Du Pont Cellophane expense such technical men as needed for this purpose.

In an agreement of December 26, 1923 between Du Pont Cellophane and the French interests, which had to do largely with the assignment and transfer of rights, trade-marks, patents, processes,

data, knowledge, information, etc. to Du Pont Cellophane, insofar as any country in North America and Central America was concerned, according to provisions of the agreement of June 9, 1923, Du Pont Cellophane agreed to assign and transfer to the French without charge, the entire right, title and interest, insofar as concerns all countries other than in North America and Central America, in and to any rights, trade-marks, patents, patent rights, processes and apparati that might thereafter be discovered, invented or developed by it having to do with cellophane or the processes or apparati for manufacturing or using cellophane. Also both parties agreed to furnish without charge, each to the other, all information that may be requested at any time concerning discoveries, inventions, developments, patents, processes, technical data, change of processes, and other and similar information relating to the business of manufacturing cellophane from viscose.

It was provided further that in the event a corporation or enterprise not associated and affiliated with Societe La Cellophane should thereafter be organized to manufacture and exploit cellophane made from viscose in any country except France and North and Central America, pursuant to agreement with Societe La Cellophane, it was agreed that such company so formed or licensed by Societe La Cellophane should be entitled to receive through the latter the rights, trade-marks, patents, patent rights, processes, apparati and information above mentioned free of charge but only on condition that such company so formed or licensed to manufacture cellophane should in turn agree to furnish through Societe La Cellophane to Du Pont Cellophane, free of charge, corresponding rights and information, etc. Kalle & Co., A. G. in Germany and British Cellophane, Limited in England later qualified under this provision and, to facilitate technical exchanges with these concerns by dealing directly, rather than through Societe La Cellophane, technical agreement was made by Du Pont Cellophane with

Kalle on May 7, 1929 and with British Cellophane on May 3, 1935. In view of admission by Kalle late in 1940 of its inability under then existing conditions to carry out its obligations under the above agreement, du Pont notified Kalle early in 1941 that it considered its technical agreement with them to be terminated. The above agreement with British Cellophane still is in effect, subject to wartime restrictions.

On April 1, 1929 the du Pont Company became the sole owner of Du Pont Cellophane through acceptance by the latter of an offer made by the du Pont Company to assume all Du Pont Cellophane outstanding obligations, contracts and liabilities and to deliver to Du Pont Cellophane shares of the capital stock of the du Pont Company equal in number to one and two-fifths (1 2/5) shares of du Pont Company common stock for each share of Du Pont Cellophane common stock issued and outstanding, in exchange for all Du Pont Cellophane business, property and assets of every kind, character, nature and description. Du Pont Cellophane distributed the du Pont Company common stock to its stockholders and dissolved the company.

The du Pont Company organized a wholly-owned subsidiary, also entitled Du Pont Cellophane Company, Inc., to conduct the cellophane business. On July 1, 1936 the entire assets and business of this latter company were acquired by the du Pont Company and the cellophane business thereafter has been administered by a separate division (Cellophane Division) of the Rayon Department of the du Pont Company.

When the reorganization of Du Pont Cellophane occurred in 1929, the technical agreement of December 26, 1923 was continued in effect. Early in 1941 this agreement was cancelled by mutual consent of the French and du Pont.

To avoid possible misunderstanding regarding provisions of cellophane agreements to which it was a party, du Pont on October 17,

1940 wrote to Societe La Cellophane, Kalle, British Cellophane (and to C.I.L.) advising that it construed these agreements as not imposing any restriction upon the sale of cellophane in any country in which the public is free to sell. In other words, each party to an agreement is regarded as free to export such film to any country in the world, subject only to such limitations as may be based upon the unauthorized use of patented inventions or trade-marks in the country of manufacture, or in the country of use or sale.

Development of the cellophane business in North and Central America since production was started at Buffalo in 1924 has been through manufacture at plants established in the United States (see below) and distribution of their production throughout this country and by export to other countries in the above territory, including Canada; excepting that under an agreement of November 1, 1933 with Canadian Industries Limited, Du Pont Cellophane appointed C.I.L. as its agent to manufacture and sell cellophane under the "Cellophane" trade-mark which had been registered in Canada. Through sampling of the Canadian product, frequent inspection and other means, Du Pont Cellophane assured itself that the C.I.L. manufacture was maintained fully up to quality and worthy of the "Cellophane" trade-mark. Subsequently, following litigation invoalving the trade-mark and with C.I.L. well entrenched in the business, it appeared preferable to have C.I.L. conduct the enterprise in Canada in its own name. The agency agreement therefore was cancelled as of December 31, 1937 and since that time C.I.L. has been operating the business subject to provisions of the tri-party agreement in force between du Pont, C.I.L. and I.C.I.

Table No. 1 below shows the locations of Du Pont Cellophane manufacturing plants which have been established in the United States and, for each of these, when production was started and

expansion that since has occurred in the indicated initial rated annual producing capacity.

TABLE NO. 1

CELLOPHANE PLANTS

Plant and Location	Operation Started	Rated Annual Producing Capacity Initial (pounds)	Present (pounds)
Buffalo (N.Y.) #1	April, 1924	1,300,000	12,000,000*
Old Hickory (Tenn.) #1	Oct., 1929	6,000,000	15,000,000
Old Hickory #2	August, 1930	6,600,000	15,000,000
Spruance #1(Richmond,Va.)	Nov., 1930	6,600,000	15,000,000
Buffalo #2	Feb., 1932	8,700,000	16,000,000
Spruance #2	May, 1937	12,200,000	19,000,000
Clinton (Iowa)	March, 1941	14,000,000	18,000,000

*Rated capacity when manufacture here was discontinued early in 1942 as a result of Government restrictions on the use of cellophane. At the request of the War Production Board, conversion of the plant to the manufacture of Cordura tire yarn was started in 1943. This conversion is scheduled to be completed in April, 1944.

The following tabulation shows the growth of the cellophane business under du Pont sponsorship (from a relatively inconsequential earlier volume of import sales in the United States) and particularly the influence upon this expansion which has resulted from the introduction of the moistureproof product -- a wholly du Pont development. The sale of imported cellophane in the United States started in 1919 and was concluded in 1924 after manufacture was started at Buffalo. Accurate figures on the volume of import sales are not available but the quantities given below for the 1919-23 period are considered to be fairly close approximations.

- 9 -

TABLE NO. 2

CELLOPHANE SALES
(pounds)

Calendar Year	Moistureproof	Plain	Total
1919 (imported)	-	18,000	18,000
1920 "	-	65,000	65,000
1921 "	-	224,000	224,000
1922 "	-	318,000	318,000
1923 "	-	353,000	353,000
1924	-	521,000-a	521,000
1925	-	1,008,000	1,008,000
1926	-	1,741,000	1,741,000
1927	Negligible	2,005,000	2,005,000
1928	406,000	2,677,000	3,083,000
1929	1,526,000	4,310,000	5,836,000
1930	6,604,000	6,025,000	12,629,000
1931	15,628,000	9,343,000	24,971,000
1932	16,704,000	10,948,000	27,652,000
1933	21,486,000	11,594,000	33,080,000
1934	26,391,000	12,732,000	39,123,000
1935	29,947,000	13,481,000	43,428,000
1936	38,550,000	16,368,000	54,918,000
1937	43,617,000	16,807,000	60,424,000
1938	45,354,000	16,144,000	61,498,000
1939	55,342,000	18,404,000	73,746,000
1940	62,435,000	19,224,000	81,659,000
1941-b	79,167,000	25,595,000	104,762,000
1942	74,560,000	12,929,000	87,489,000
1943	85,159,000-c	11,936,000	97,095,000

a-Combined sales of imports and Buffalo production.
b-1941 was the last year before Government restriction of use under Order L-20 (WPB, Feb. 1942).
c-Increase due to development of war uses.

A corollary of the continuing expansion in volume of sales (actual or potential) which resulted primarily from improvements in quality of the product -- particularly development and commercial availability of the moistureproof type of cellophane -- has been the frequent reductions in prices which have been made as part of a broad sales policy. There are three principal weights of cellophane -- 300 gauge, 450 gauge and 600 gauge. As over the years 300 gauge has constituted in the neighborhood of 90 per cent of total sales, price schedules for this weight product are shown below (Table No. 3) to exemplify the many price reductions which have been

made in cellophane since du Pont manufacture was started in 1924, without a single price increase during this period of approximately 20 years.

TABLE NO. 3

CELLOPHANE PRICES

300 Gauge--Maximum Quantities

Reduction Number	Date	ROLLS Per Pound M'proof	ROLLS Per Pound Plain	STOCK SIZE SHEETS Per M sq. Inches M'proof	STOCK SIZE SHEETS Per M sq. Inches Plain	CUT-TO-SIZE SHEETS Per M sq. Inches M'proof	CUT-TO-SIZE SHEETS Per M sq. Inches Plain
-	5-15-24	-	2.65	-	.0975	-	.105
1	2- 2-25	-	1.75	-	.08	-	.09
2	1-15-26	-	1.60	-	.075	-	.085
3	1-15-27	-	1.45	-	.0675	-	.075
4	8-15-27	1.60	1.25	.08	.0575	.085	.065
5	6- 1-28	1.48	1.10	.08	.0525	.085	.06
6	11-30-28	1.35	1.00	.0725	.0475	.0775	.055
7	8- 1-29	1.20	.90	.065	.0425	.07	.05
8	2- 1-30	1.10	.80	.0575	.0375	.0625	.0425
9	5-26-30	1.10	.75	.0575	.035	.0625	.04
10	8- 1-30	1.00	.65	.0525	.03	.0575	.035
11	10- 1-30	.90	.60	.0475	.0285	.0525	.0325
12	3- 2-31	.75	.50	.04	.025	.045	.029
13	8- 1-31	.70	.45	.038	.023	.043	.027
14	5- 2-32	.64	.42	.035	.022	.04	.025
15	1-11-33	.58	.40	.033	.021	.037	.023
16	5-14-34	.52	.38	.03	.02	.033	.022
17	1- 7-35	.48	.36	.028	.019	.031	.021
18	12-16-35	.46	.35	.025	.017	.028	.019
19	12- 5-38	.44	.34	.024	.017	.027	.019
20	10-30-39	.41	.33	.022	.016	.025	.018
21	11- 1-41	-	-	-	-	.023	.017

In May 1925 and with the aid of two ex-employees of Societe La Cellophane there was formed at Ghent in Belgium a corporation called Societe Industrielle de la Cellulose (S.I.D.A.C.) of which the above two individuals became commercial director and administrator and technical director and administrator, respectively. By 1928 the competition of this Belgian cellophane producer was being felt seriously by the French, especially abroad where a large part of the S.I.D.A.C. product was being shipped; S.I.D.A.C. also was competing with Du Pont Cellophane through the sale of imports in the United States. Having reason to believe that S.I.D.A.C. was infringing some

of their Belgian patents and otherwise pirating their processes, know-how, etc., La Cellophane proceeded through the Belgian courts to protect their interests. The claims of La Cellophane were sustained and as S.I.D.A.C. was unable (or claimed to be unable) to settle with La Cellophane in cash, they offered and La Cellophane finally accepted shares of stock in S.I.D.A.C.

This acquisition by La Cellophane of a part interest in S.I.D.A.C. involved embarrassing complications for the French group as regards their obligations to Du Pont Cellophane and also presented considerations of importance regarding cooperation of Du Pont Cellophane with the French. S.I.D.A.C. was the parent company of similar undertakings in some other countries, including the Sylvania Industrial Corporation in the United States in which S.I.D.A.C. held stock participation. Through their part ownership of S.I.D.A.C., the French interests in Du Pont Cellophane contravened their obligation not to become interested (prior to December 31, 1935) directly or indirectly in any capacity, except through Du Pont Cellophane, in any business or enterprise in North or Central America engaged in the manufacture of cellophane. Also, not only had there been impaired the right of Du Pont Cellophane to enjoy exclusively the benefit of the French inventions, processes, technique, etc. in North America but information regarding Du Pont Cellophane discoveries, inventions, developments, etc. was continuing to flow to the French and might to some extent at least reach S.I.D.A.C. and through them get to Sylvania.

This situation was the subject of various discussions with the French which led finally to the following arrangement (quoted from minutes of meeting of Du Pont Cellophane Board of Directors held May 8, 1930) as reparations for transgression by the French of their contractual obligations to Du Pont Cellophane.

(a) La Cellophane will undertake to do its best to prevent technical information, patents and other data furnished by Du Pont to La Cellophane and/or its licensees from going directly or indirectly to the Belgian S.I.D.A.C. or its affiliated companies, particularly the Sylvania Industrial Corporation.

(b) As applied to Non-Moistureproof Cellophane, Du Pont shall have equal rights with La Cellophane in Japan and South America, and also in China, provided La Cellophane obtains rights in the last named country.

(c) In the event of any happening that may result in the elimination of any of the existing companies, except La Cellophane, Du Pont Cellophane is to receive always rights equal to those of La Cellophane in the specified countries.

(d) Du Pont shall have equal rights with La Cellophane in South America and/or Japan on Moistureproof Cellophane.

(e) Du Pont shall have the option to participate upon the same terms and conditions as La Cellophane in any undertaking to build plants in Japan and/or South America.

Upon finding that the American market required important quantities of moistureproof film, the Sylvania Industrial Corporation started to manufacture such a product, thereby infringing Du Pont Cellophane patents in this field. Du Pont Cellophane instituted infringement suits against Sylvania which led to settlement out of court through a licensing agreement into which Du Pont Cellophane and Sylvania entered under date of April 26, 1933. Du Pont Cellophane granted to Sylvania a license under five patents then owned by Du Pont Cellophane covering the production of a moistureproof sheet or film of regenerated cellulose (cellophane) and Du Pont Cellophane and Sylvania each agreed to grant to the other, at the other's election, licenses under any future patents received or acquired prior to October 6, 1948 where the inventions fall within the scope of one or more of the above five Du Pont Cellophane patents and are concerned with the manufacture of moistureproof regenerated cellulose film.

All licenses under the agreement are to be for manufacture, importation and sale within the United States and its territories and possessions and were to be non-exclusive. However, it was agreed that licenses would not be granted to third parties under any patents licensed or which might be licensed to Du Pont Cellophane or Sylvania under this agreement, without prior agreement of the licensee or potential licensee under this agreement to the terms of license to be granted to the third party. This part of the agreement was amended by an agreement of July 12, 1938, between the du Pont Company (which previously had acquired Du Pont Cellophane) and Sylvania, providing that all licenses between the principals of the Sylvania agreement are to be exclusive licenses. Subsequently Sylvania consented, by an agreement dated September 19, 1939, to du Pont licensing Marathon Paper Mills Company to moistureproof cellophane with rubber-wax composition and to sell this product only for the packaging of cheese, the royalty paid by Marathon to be divided between du Pont and Sylvania in the ratio of 2 to 1, respectively.

Royalty terms under the agreement of April 26, 1933 are as follows. Sylvania to pay Du Pont Cellophane 2 per cent of the net selling price of licensed products sold by Sylvania for use within the license territory. Under additional licenses acquired by Sylvania through election, a further 2 per cent to be paid to Du Pont Cellophane (4 per cent total) under those licenses covering inventions which, though within the scope of, are distinct departures from the above five Du Pont Cellophane moistureproof patents. Under licenses acquired by Du Pont Cellophane no royalty to be paid unless the invention, similarly, is a distinct departure from the above five Du Pont Cellophane moistureproof patents, in which event the royalty to be paid to Sylvania to be 2 per cent of the net selling price of the licensed products. These royalties are not to be cumulative in instances where several licenses are involved.

While du Pont has through election taken licenses under nine Sylvania patents, it never has operated under any of these and has not paid any royalty to Sylvania under this agreement. On the other hand, Sylvania has obtained from du Pont 70 licenses (in addition to the license under the above five Du Pont Cellophane patents) and each year pays a substantial sum to du Pont for the use of the licensed inventions of the latter.

The agreement also provides that, should the sale in any year of licensed products by either party for use in license territory exceed the following percentages of their combined annual sales in license territory of moistureproof regenerated cellulose film, there shall be paid on such excess sales an additional royalty of 20 cents per pound or 30 per cent of the net selling price of such products, whichever amount is the greater.

Percentages of Combined Annual Sales of Moistureproof Regenerated Cellulose Film in License Territory Referred to Above

Calendar Year	Du Pont	Sylvania
1933	80	20
1934	79	21
1935	78	22
1936	77	23
1937	76	24
1938	75	25
1939	74	26
1940	73	27
1941	72	28
1942 and thereafter	71	29

With the agreement in operation for eleven years du Pont, not having operated under any Sylvania licenses, of course has not paid royalties of any kind under this agreement. At no time has Sylvania been subject to the payment of royalties for excess sales as defined above. The actual Sylvania sales record each year in comparison with their quota for that year has been as follows:

Sylvania Percentages of Combined Annual Sales of Moistureproof Regenerated Cellulose Film in License Territory

Calendar Year	Quota per Above	Actual
1933	20	12.7
1934	21	17.4
1935	22	20.4
1936	23	21.2
1937	24	20.6
1938	25	22.8
1939	26	21.2
1940	27	20.6
1941	28	20.6
1942	29	24.8
1943	29	22.5

It is to be noted that the Sylvania agreement does not involve cooperative research or provide for the exchange of technical information at any time. It merely licenses or provides for the licensing of patent rights. These licenses are not implemented by the furnishing of supplementary information.

The agreement provides that it and licenses thereunder may be terminated as the result of some act of bankruptcy or insolvency of either party or failure of du Pont to terminate infringement by a third party of any of the above five Du Pont Cellophane patents which is harmful to Sylvania. In the absence of earlier termination, licenses under the agreement shall extend to October 6, 1948 and licenses under other patents than the above five Du Pont Cellophane patents will extend beyond that date to expiration of the patents in instances where either party actually has begun manufacture and sale on a commercial scale prior to October 6, 1948.

WWR/DBW

17

GOV'T EXHIBIT NO. 11
Civil Action 1216

cc: C. L. Black

28-4

March 27, 1945
~~March 28, 1945~~

Sylvania Industrial Corporation

~~SYLVANIA INDUSTRIAL CORPORATION~~
~~[illegible] 42nd Street~~
~~New York 17, New York~~

Attention: Mr. J. W. Dittle

Dear Jack:

Thank you very much for the two copies of your Bulletin No. 434 containing information on the codes, description and general uses of your films.

As you requested, we are attaching a list showing the types and characteristics of Cellophane which we manufacture. We hope this will give you what you wanted on code designations, etc.

Kindest regards.

Yours very truly,

W. G. Hunter, Manager
TECHNICAL SECTION

WGH:CAH
Attachment

C238-K1

FILE COPY

PLAIN OR NON-MOISTUREPROOF FILMS

KIND	CHARACTERISTICS	PRINCIPAL USES
300 PT	Non-moistureproof, air, dust, grease and oilproof. Readily absorbs water. Impermeable to dry gases. Permeable to moist gases in proportion to solubility of gases in water.	General wrapping purposes wherein moisture protection is not needed. Packaging non-edible oils and greases. For edible oils, see 300 & 450 PT-62.
300 PT 62	Same characteristics as 300 PT. Average durability. Minimum shrinkage.	Laminations. Lining fibre container bodies. Packaging edible oils and greases. Wraps for bacon, sausage, etc.
300 PHT	Similar to PT but offers greater resistance to sticking and blocking at high relative humidities; of lower durability than PT.	Box liners. Wrapping fresh fruits and vegetables. General use in tropical countries.
300 PC	Non-moistureproof colored film available in amber, tango & red. Other colors discontinued for the duration of the war.	General wrapping purposes.
300 PRC	Non-moistureproof colored film but with added properties of fastness to light, water and grease and offering protective properties against rancidity development. Available in tango and black only.	Meat and food wrapping where non-bleeding color or protection against rancidity development due to ultra-violet light is desired.
300 PO	White, opaque; non-moistureproof.	Special uses.
300 450 PJT	Flame-resisting; non-moistureproof film. Carries official Fire Underwriters' rating MM-2077.	Decorative materials. Flame resisting windings on wire and electrical cables.
450 PT	Same as 300 PT but having greater thickness and durability.	Wraps for products requiring steam sterilization. Bags for dried vegetables. Non-moistureproof window cartons. Box and carton overwrap.
450 PC Tango	Non-moistureproof colored film. Only color now available in this gauge of PC stock.	General wrapping purposes.
450 PT 62	Same as 300 PT-62 but having greater thickness and durability.	Bags for macaroni, noodles and other paste goods. Laminations. Packaging edible oils and greases.

C238-K2

FLASH OR NON-MOISTUREPROOF FILMS

KEEP	CHARACTERISTICS	PRINCIPAL USES
450 PJC Black	Non-moisture-proof black flame resisting film. Similar to 450 PJT except colored.	Wire and cable wraps.
600 PT	Same as 450 PT-62 but having greater thickness and rigidity.	Window boxes, molding
600 PC Red PC-6 Lt.Blue	Similar to 600 PT except colored.	Window boxes. [illegible] Opening tape. Parting sheet in molded plywood.

INTERMEDIATE MOISTURE PROTECTION FILMS

KEEP	CHARACTERISTICS	PRINCIPAL USES
300 LST	Partially moisture protective. Heat sealing. Durability equivalent to 300 MST-52.	Packaging products that require controlled rate of moisture loss. Sugared doughnuts, hard crust breads, flower bulbs.
300 MSDT	Similar in moisture protection to LST. One side same as PT; other side same as MST. Natural tendency to curl. Heat seals normally with coated surfaces together. Weak seals with coated to uncoated side.	Laminating to other materials. Special uses.
300 LAT	Offers somewhat greater moisture protection than LST. Water resisting for use on wet or moist products. Not heat-sealing.	Fresh vegetables. Special containers for cottage cheese, salads, etc. Cut flowers. Milk bottle hoods.
300 LAC	Similar to LAT, except colored. Available only in red, tango & light green.	Milk bottle hoods.

MOISTUREPROOF NON-HEAT SEALING FILMS

KEEP	CHARACTERISTICS	PRINCIPAL USES
300 MT 31	Low rate of moisture-vapor transmission. Sealed with lacquer-type adhesives or with nitrocellulose solvents plus low heat. Very weak heat seals. Grease and oil-proof. Impermeable to dry	Wrapping cigarettes. Carton overwraps. Cigar tubes.

C238-K3

MOISTUREPROOF HEAT-SEAL CELLULOSE FILMS

KIND	CHARACTERISTICS	PRINCIPAL USES
	gases or gases of low water solubility. Very low permeability to water soluble gases.	
300 MT 32	Modified MT film to obtain moderate heat sealing properties. Otherwise, same as MT-31.	Direct wraps on cigars.
300 450 MT 35	Same as MT-31 except film is extremely flexible and possesses extra durability at low temperatures.	Hot hard candy. Carton liners for frozen foods (dry packs). Parting sheet in molding plywood.
300 MAT 1	Standard moistureproofness. Normal shrinkage. Better than average durability and flexibility. Possesses water repellency.	Direct wraps on wet products not requiring heat sealed closure. Special laminations. Liners for fibre containers. Processed cheese.
300 MAT 2	Standard moistureproofness. High flexibility and durability particularly at low temperatures. Possesses water repellency.	Liners for frozen food cartons (wet packs). Direct wraps on frozen meat, etc., not requiring heat sealed closures. Base for special wraps for processed cheese.
300 MAC 30 Green	Similar to MAT-2 but colored green for Grade C Ordnance wrap manufacturers.	Ordnance wraps - Grade C
300 MAT-30	Specially developed for Ordnance wraps. pH & H_2O_2 controlled to comply with U.S. Army specification No. 100-18. Similar to MAT-1 in durability & shrinkage.	Limited to use for ordnance wraps made by wax laminations to cloth, etc.

MOISTUREPROOF HEAT SEALING FILMS

KIND	CHARACTERISTICS	PRINCIPAL USES
300 MST 31	Standard moistureproofness. Good flexibility and durability at low temperatures. Moderate shrinkage characteristics. Has tendency to pucker on greasy or high fat content products.	Wrapping bread. Twist wraps on cold hard candy or other small objects.

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MOISTUREPROOF HEAT SEALING FILMS

KEEP	CHARACTERISTICS	PRINCIPAL USES
300 450 MST 52	Standard moistureproofness. Normal shrinkage characteristics. Average durability and flexibility. Low puckering tendencies.	Carton overwraps. Direct wraps on potato chips, French fried or buttered popcorn. May be used to wrap caramels, nougats, kisses, etc.
300 450 MST 53	Standard moistureproofness. High flexibility and durability, particularly at low temperatures and low humidities. Greater tendency to pucker on greasy products.	Bags or Transwrap units for packaging products requiring extra durability and puncture resisting wraps, particularly at low temperatures. Bags for frozen foods (dry pack).
300 450 MST 550	Similar to MST-53 but generally more durable.	For Government orders; to give maximum durability.
300 450 MST 54	Standard moistureproofness. Normal shrinkage characteristics. Better than average durability and flexibility. Low puckering tendencies.	Bags to package powdered products that require normal moisture protection. Bags for greasy and oily products. Laminations. Carton overwraps.
600 MST		
300 450 MST 54G	Same as MST-54 but pH and CO_3 controlled to meet U.S.Army Specification No. 100-15.	Military parts packaging. For uses where film contacts metals subject to corrosion.
300 450 MST 56	Superior moistureproofness and heat sealing properties plus all characteristics of MST-54.	Carton overwraps for hygroscopic products. Bags for hygroscopic powders. Highly moistureproof laminations.
300 450 MST 57	Superior moistureproofness and heat sealing properties plus all characteristics of MST-53.	Bags or Transwrap units for pellet-like products requiring super moisture protection.
300 MST 58	Similar in physical properties to MST-31 and 32 except full heat sealing characteristics.	Direct wraps on cigarettes and other small packages. Window cartons. Lining fibre containers for dry or powdered products, also for greasy products. Laminations.
300 600 MSC	Similar to MST-54 in all properties except colored. Available only in 300 MSC red, tango and amber; and 600 MSC red.	Colored overwrap for cartons on products requiring moisture protection. Opening tapes. Weaving and braiding.

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MOISTUREPROOF HEAT SEALING FILMS

LIST	CHARACTERISTICS	PRINCIPAL USES
300 450 MSC 540	Same as MST-540, pH & Mg, controlled, but colored standard shade of red to comply with U.S.Army Specification No. 100-15 for Grade A wrap.	Military parts packaging.
300 MSC 51	Similar to 300 MST-51 except colored. Tango only.	Bread wrapping. Twist wraps on cold hard candy.
300 MSRC	Similar to PRC with addition of standard moistureproofness and heat sealing properties. Tango only.	Heat sealed packages for products requiring protection against rancidity development.
300 450 MSAT 86	Standard moistureproofness. Strong heat sealing properties. Water resisting to withstand contact with moist or aqueous products. Highly flexible and durable. Low puckering tendencies.	Direct wraps on wet products that require strong heat seal and standard moisture protection. Suitable for products requiring pasteurization. Special laminations. Liners for fibre containers for aqueous products. Wrapping products to protect them against water, oil, gases, etc. Suitable for moderately hygroscopic powders. Strong durable bags for hot climates, either dry or humid.
300 450 MSAT 87	Standard moistureproofness. Strong heat seals. Water resisting. Highly flexible and durable at low temperatures and low humidities. Greater shrinkage than MSAT-86.	Direct wraps or bags for frozen foods, fruits, etc. Liners or overwraps for frozen food cartons. Suitable for meat casings and similar packages of meat products. Bags for articles needing protection against water, oils, gases, etc. Strong, durable bag for cold, dry climates.
300 450 600 MSAT 82 & 480 MSAT 882	Standard moistureproofness, strong heat sealing properties, and water resistance.	Same as for MSAT-86 with some special Government uses in addition.
300 450 MSAT 88	Standard moistureproofness, strong heat sealing properties and water resistance. Greater shrinkage than MSAT-82.	Same as for MSAT-87 with some special Government uses in addition.

c238-K6

MOISTUREPROOF HEAT SEALING FILMS

KIND	CHARACTERISTICS	PRINCIPAL USES
300 MSAT 82G	Same as 300 MSAT-82, but pH and 30g controlled to meet U.S.Army Specification No. 100-15.	Military parts packaging.
300 MSAC 82G Red & Green	Same as 300 MSAT-82G, pH and 30g controlled, but colored to comply with U.S.Army Specification No. 100-15 for Grade A and Grade C wraps respectively.	Military parts packaging.
300 450 MSAT 84	Similar in physical properties to MSAT-82 but having superior moisture-vaporproofness and superior heat sealing properties.	Same uses as MSAT-82 but on products that are extremely hygroscopic or which need special protection.
450 MSAT 84G	Same as 450 MSAT-84 but pH and 30g controlled to meet U.S.Army Specification No. 100-15.	Military parts packaging.
450 MSAC 84G Red	Same as 450 MSAT-84G, pH and 30g controlled, but colored red to meet U.S.Army Specification No. 100-15, for Grade A wraps.	Military parts packaging.
600 MSAC 82G Lt. Blue	Same as MSAT-82 except colored light blue.	Parting sheet in plywood molding.

NOTE: All moistureproof heat-sealing films are inherently greaseproof and oilproof and have same resistance to gas permeation as indicated for MT-31.

AREA FACTORS

	Non-Moistureproof	Moistureproof
300 gauge	23,400 sq. in./lb.	21,000 sq. in./lb.
450 "	16,600 " " "	15,200 " " "
600 "	12,400 " " "	11,600 " " "

6238-K7

GOV'T EXHIBIT NO. 25
Civil Action 1214

1944 Catalogue

CELLOPHANE (Regenerated Cellulose)

Cellophane is essentially regenerated cellulose in sheet form with which is associated a carefully regulated proportion of glycerol or other compatible softening agents of very low vapor pressure. Both cellulose and glycerol are definitely hygroscopic. There is, therefore, associated with the cellulose-glycerol system a minor and somewhat variable quantity of water depending in quantity upon the atmospheric environment. The physical and many other properties of cellophane are wholly derived from the behavior of this three-component system. For most varieties of cellophane, the composition will usually lie within the following ranges:

Regenerated cellulose - 65% to 70%.

Softener or plasticizing agent - 0% to 25%.

Hygroscopic moisture - 4% to 10%.

When the sheets have been subjected to a moistureproofing process, the additional ingredients used in this step must be added to the above table of ranges. The total ingredients for the moisture-proofing process may add to the sheet from 5% to 10% additional weight per unit of area.

The usual source of the cellulose used in the manufacture of cellophane is a high quality sulfite wood pulp which is obtained in rectangular sheets about 2' square. These sheets are first steeped in sodium hydroxide solution of a carefully controlled concentration at a definite temperature for a fixed period of time. During this operation the cellulose fibers become swollen, translucent and silky. The resulting product is known as sodium or alkali cellulose. The reaction of sodium hydroxide with cellulose is reversible and a large excess of alkali steeping liquor is always present

in order to prevent hydrolysis of the sodium cellulose. Following the steeping process the sheets are pressed to remove excess liquor until their weight is approximately three times the original dry weight of the cellulose used.

The alkali cellulose is shredded to produce a light, fluffy, crumb-like material. The shredded product is aged for several days in covered containers at a carefully controlled temperature. This aging process brings about a drop in the inherent viscosity of the cellulose as a result of the action of atmospheric oxygen on the alkali cellulose. The control of this step is of utmost importance industrially for it is this oxidation that brings about the decrease in the average chain length of the cellulose molecule and makes it possible to prepare a workable solution of viscose containing the proper percentage of cellulose.

After aging, the alkali cellulose is treated with carbon disulfide in large slowly rotating drums. The carbon disulfide reacts with the sodium cellulose to produce a solid crumb-like orange-red mass known as cellulose xanthate.

The cellulose xanthate is mixed with dilute sodium hydroxide solution to form a uniform colloidal suspension of an orange color and of the consistency of corn syrup. This liquid is known as viscose and is the material used in the production of cellophane, rayon, cellulose sponges and cellulose caps and bands.

The viscose solution is allowed to stand from one to several days during which time it is stored at a constant temperature in large tanks which are kept under a high vacuum in order to remove all traces of air bubbles. The mass is filtered several times to remove dirt particles and undissolved material.

When the viscose is ready for casting, it is pumped under high pressure to the casting machines for regeneration in sheet form. This is effected by forcing the viscose into a long rectangular hopper which on its lower and extrusion side is equipped with a pair of adjustable blades forming between their lips a long narrow slot. The tips of these blades are immersed below the surface of an acid coagulating bath so that as the viscose is extruded, it at once encounters the action of the bath itself.

The acid coagulating bath reacts with the viscose solution to form cellulose, sodium sulfate and carbon disulfide. The cellulose is, therefore, regenerated. From the coagulating baths the film is carried through the remainder of the casting machine, over a series of rollers which are immersed in successive purification tanks. The final tanks on the machine contain dilute solutions of glycerol or other softening agents. From these baths the film enters the drying part of the machine where it passes over a series of heated rolls in an atmosphere of hot air to reduce the moisture content to the desired value.

The film thus produced is not moistureproof. This film may be sheeted or slit into small rolls for direct use. If it is desired to produce a moistureproof variety of film, the cellophane is given a subsequent treatment to apply a coating composition in a very thin layer on both sides to reduce the moisture-vapor transmission of the film. The cellophane sheet is run through a bath containing low viscosity cellulose nitrate, plasticizers, such as dibutyl phthalate, resins, such as ester gum or damar, and waxes such as paraffin, ceresin or certain animal or vegetable waxes, all dissolved in a suitable mixture of volatile organic solvents. After the film passes through this solution which coats both sides, it passes through

suitable rolls to remove the excess solution and then passes to heated chambers where the volatile solvents are removed and recovered.

Developments in 1943:

Responding to the manifold and urgent needs of a nation at war, cellophane has enlisted for the duration and is "Standing Guard" on many fronts at home and overseas.

Cellophane derived from wood pulp, but having almost as much versatility as metal, has not only been continuing its protective functions on essential civilian foodstuffs, tobacco and drugs but has also found important new jobs in war production plants and on the battle lines.

In the packing of ordnance and parts for aircraft, tanks and Army trucks, cellophane is laminated to cotton scrim or other materials and impregnated with additional moistureproof substances to make a tough heat-sealing wrapper. Garand rifles, Browning and Thompson submachine guns, as well as various tanks and truck parts are all wrapped with these materials. By protecting guns, ammunition, parts and precision instruments from dust and moisture, the cellophane laminated wrappers obviate the necessity of coating the articles with grease and thus save hours of precious time otherwise needed to degrease the articles before use.

Many of the smaller replacement parts such as those used in the operation of anti-icing systems of airplanes and in the hydraulic systems that operate bomb-bay doors, wing flaps, and machine gun turrets, are packaged in cellophane bags, printed with identifying labels, numbers and instructions. Such parts must be kept in perfect condition if they are to fit and operate smoothly and the cellophane bags give them the needed protection during shipment to supply depots

and to front line repair stations. Similar bags are used to protect bolts, screws and small parts and to keep them conveniently separated in factory storerooms and along the production lines where aircraft parts and other war items are being made.

Cellophane is used in a great variety of electrical equipment from small motors to heavy battleship cables and wires for trucks, airplanes and tanks. In many cases the cellophane serves a double purpose, acting as an electrical insulator and also protecting against grease and oil.

One of the biggest jobs assigned to cellophane is the protection of many Army and Navy rations as well as food in Lend-Lease shipments. By itself or laminated to metal foils, asphalt impregnated kraft paper, glassine, parchment and other materials cellophane is protecting quantities of dehydrated foods. Soup mixes, prepared rice puddings and more recently pre-cooked cereals are among the items going into cellophane bags for the Army and Navy. Fruit powders and dehydrated fruit spreads are also being put up in cellophane bag-in-box containers.

The Emergency Field Rations, particularly the "K" rations, use many tons of cellophane for wrapping individual items, such as the special biscuits, the fruit bars, lemon powder, bouillon powder, and cigarettes. The so-called "K" bag in which many of the components are enclosed before being placed in the wax-dipped paperboard box is of laminated cellophane.

In the field of military medicine, the germ-proof, dust-proof and moistureproof properties of cellophane are being widely used. Bandages and dressings are kept sterile in such wrappings.

Hypodermic needles, surgical instruments and first-aid kits are similarly protected. Cellophane likewise provides much of the protection for the famous life-saving sulfa drugs.

In the packaging of compressed dehydrated foods, cellophane is playing an important part. Dried eggs for Lend-Lease use is a good example of this application. The foods can be compressed into small yeast-cake-size tablets or larger brick-size blocks and as soon as each unit comes from the compression machine, it goes into a cellophane wrapping machine where it is wrapped in a heat-sealing variety of moistureproof film. Dehydration alone greatly reduces the weight of food. Ten tons of raw foods usually dehydrate to one ton. This reduces the space required for shipment by 50% to 90% depending upon the food product. Compression, by squeezing out air, saves still more space, enabling the food to be shipped in one-quarter to two-thirds the space required for ordinary dehydrated food.

On the home front cellophane is doing an important job of saving metal. A great many foods formerly packaged in metal cans are now reaching the consumer in cellophane, either alone or in combination with fiberboard. Many tons of steel and tin are thus released for vital war uses. Products such as shortening, jams and jellies, baking powder, coffee, cereals, and dehydrated soup mixes are being merchandised in similar containers. A specially coated cellophane is taking the place of metal foil in the packaging of cheese, and large cellophane bags inside fiberboard containers are serving in place of metal cans for frozen eggs and frozen fruits.

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7/2/43

GOV'T EXHIBIT NO. 26
Civil Action 1214

cc: DR. E. B. BENGER
RAYON DEPARTMENT
MR. C. H. RUTLEDGE

May 21, 1946

DR. W. W. SMITH
RAYON DEPARTMENT

Mr. Harry Stenerson, associate editor of CHEMICAL AND ENGINEERING NEWS, was in my office one day last week, discussing transparent wrapping materials, including cellophane. It appears that he contemplates a story along this line in some early issue of CHEMICAL AND ENGINEERING NEWS, and to this end Mr. Rutledge and I gave him just about all the information he desired. He was, however, interested in knowing more about the moistureproof coating on cellophane, but I told him that I would have to make some sort of investigation before I could pass on to him certain facts concerning the moistureproofing process.

In view of the Church and Prindle patent covering moistureproof cellophane, it is my understanding that we are free to discuss certain aspects of the process, but I am not positive that we are at liberty to disclose all of the information given in the attached memorandum which I should like to pass on to Mr. Stenerson if it meets with your approval. I do, however, believe that all of the information contained in my attached notes on cellophane has been divulged, at one time or another, in various company speeches and publications.

I might add that this matter is being referred to you at the suggestion of Dr. Benger, and I shall appreciate it if you will let me know at your early convenience whether or not it is all right to send a copy of these notes to Mr. Stenerson.

Please note particularly my statement in the attached notes that enough cellophane has been made "during the past five years" to encircle the earth with a strip 75 yards wide. Mr. John Hatt authorized me to make that statement in a speech back around 1935. If it were true then, I would certainly presume that as of today it is a rather conservative statement.

JHH:mdb-7
Enc

JAS. H. HUNT

C-8048

Some Miscellaneous Notes on Cellophane Including the Moistureproofing Operation

In the early 1900's Brandenberger, a Swiss chemist, became interested in the application of viscose to textiles. Viscose did not prove successful as a textile finish, but Brandenberger saw the possibilities of detached films ~~of regenerated cellulose~~, and in 1908 designed and built the first machine for making transparent sheets of regenerated cellulose. His original product was not very good, but by 1912 he had succeeded in making thin, flexible films. During the first World War, some of Brandenberger's cellulosic sheeting was used in gas masks.

Comptoir des Textiles Artificiels took over the process in 1920 and called the product "La Cellophane". Du Pont ~~took over~~ acquired the Brandenberger process in 1923, and in 1924 the first sheet of cellophane made in the United States was turned out at Buffalo, New York. This was, of course, ordinary, plain transparent cellophane -- not moistureproof. This first product sold for around $2.65 a pound. From this rather humble beginning has developed an industry which, during the past five years, has made sufficient cellophane to encircle the Earth at the Equator with a strip 75 yards wide.

For many purposes plain cellophane is wholly satisfactory as a wrapping material, but it is quite permeable to water vapor, and therefore the original ~~plain transparent cellophane~~ product could not compete with wrappers such as waxed papers, where impermeability to water vapor was desired. Accordingly, shortly after Du Pont began the manufacture of cellophane, consideration was given to possible methods for making this cellulosic film impermeable to water vapor, without any loss of transparency, lustre, etc. It was early observed

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that, while plain transparent cellophane readily transmitted relatively large molecules of water (in the form of vapor), and also gases and vapors soluble in water, it was highly impermeable to hydrogen or helium, the molecules of which are quite small in comparison with those of water vapor and certain other gases which readily passed through cellophane. This ~~specification~~ saturation led to a theory for the mechanism whereby water vapor, etc., passed through cellophane, which in turn led ultimately to the development of a moistureproofing process.

The fact that plain transparent cellophane was highly impermeable to small molecules of hydrogen or helium indicated that the film is not porous, in the ordinary sense of the word. In other words, moistureproofing would not involve stopping up holes, but rather would involve the application of a coating to keep water away from the cellulose.

After extensive research, such a coating was finally devised, comprising pyroxylin, resins, a wax, and suitable solvents. Strangely enough, this lacquer, which is applied in a very thin coating,* is relatively ineffective without the wax constituent. Also, the wax, if used alone (dissolved in a volatile solvent) and applied to the cellophane in an amount equal to that contained in the lacquer, is likewise relatively ineffective. In other words, it takes a combination of all the lacquer ingredients to produce the desired effect, yet the wax constituent of the lacquer is unquestionably the critical component.

* #300 plain transparent cellophane has a thickness of approximately 0.0008", while #300 moistureproof cellophane has an approximate thickness of about 0.0009". Since the moistureproof coating is on both sides of the film, this means that the coating of one side has a thickness of only about 0.00005".

It is of interest that the amount of wax in the lacquer corresponds to only about 0.05 grams per square metre (one side) of the moistureproof cellophane. Switching from the metric system to the British system, the wax in the moistureproofing lacquer amounts to about one oz. per 5,000 square feet of coated surface, or approximately eight oz. per acre! This quantity of wax, if spread out alone ~~over one square meter~~, would give a film only about four one-millionths of an inch thick. As indicated previously, however, the wax is ineffective if used alone.

In applying the moistureproof coating, a roll of cellophane, which may comprise a sheet one mile long, is unwound from a giant spool and passed through a humidifying apparatus, and thence through a tank of the moistureproofing lacquer. "Doctor blades" remove ~~surface~~ excess lacquer. The sheet of cellophane then passes up through a hot chamber until the solvent in the lacquer is substantially all eliminated. It then passes over a roller at the top, and down through a heated chamber which is maintained at a high relative humidity. Paradoxical as it may sound, the moisture which the cellophane lost during its upward journey through the hot coating tower is regained as it passes through this heated chamber maintained at high humidity. The explanation of this seeming paradox is that the high temperature keeps the coating in a condition to permit diffusion of moisture into the cellophane film. Once the sheet has cooled, however, it immediately takes on its permanent moistureproof properties.

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GOVT EXHIBIT NO. 28
Civil Action 1216

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE

PUBLIC RELATIONS DEPARTMENT

CC: Mr. R. E. Curtin, Jr.

November 30, 1945

Mr. Herbert C. Campbell
Editorial Director
Division of State Publicity
New York State Department of Commerce
Albany 1, N. Y.

Dear Herbert:

It was nice to hear from you again and I shall try to give you briefly the sort of information that might be of interest to you in connection with the background of cellophane.

Cellophane was one of the principal developments of researches in cellulose chemistry which began in 1846 with the nitration of cellulose by Schoenbein, of Switzerland. In 1892 two English chemists, Charles Frederick Cross and Edward J. Bevan, developed the so-called viscose method of reducing cellulose to a solution (distinguished from the nitrocellulose method) and from this solution they were able to regenerate, by means of an acid, films of pure cellulose.

It was Jacques Edwin Brandenberger, however, who brought the transparent film to the point of practical production. Brandenberger was employed by the French textile firm of Blanchiseries et Teinturie de Thaon, and he had conceived the idea of making tablecloths impervious to dirt by spraying them with liquid viscose and coagulating the viscose with an acid bath. He noticed that a corner of the coating came loose and that he could strip it off in the form of a transparent film. This first film was thick and hard but he saw in it great possibilities. By 1908 he was convinced that he had developed something significant and he set to work to turn out the film in commercial quantities. Patents on the process were obtained both in Europe and the United States. In 1912 he was producing a thin, flexible cellulose film of the general type used today. It was at that time that he gave it the name "Cellophane."

The Du Pont Company became interested in the product in 1920, by which time it was being produced by a company called "La Cellophane", which had been organized

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by France's largest rayon company, the Comptoir des Textiles Artificiels. Since the film seemed to be something reserved for the luxury trade in France, general interest had begun to drop off there, but several Du Pont men visited Brandenberger and his associates in France, and a French group came to Wilmington in 1923. The result of their conversations was the launching of a Du Pont subsidiary to manufacture film in North America. It was called the Du Pont Cellophane Company and its plant was built adjoining the plant of the Du Pont Rayon Company in Buffalo. With Brandenberger himself present, the first sheet of cellophane to be produced in this country emerged from the casting machine in the Buffalo plant in the spring of 1924.

At a cost of $2.65 a pound cellophane was still a luxury packaging material. Nevertheless, sales were soon large enough to necessitate plant expansion and within a short time prices began to drop. Du Pont chemists in 1926 and 1927 developed a moistureproof coating for cellophane which greatly expanded the product's usefulness in protective packaging. As markets expanded and production increased the Du Pont Company continued to reduce the price and today this improved moistureproof film sells for 41¢ per pound, while the plain transparent film (which was $2.65 per pound in 1924) is now 33¢.

I hope this information will be of use to you and you may be assured that we shall always be glad to give you whatever information is available on matters of this kind. Please give my regards to Pete Kimball and my very best, of course, to you.

Harold Brayman
Director

HB:SMS

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GOV'T EXHIBIT NO. 32
Civil Action 1216

August 23, 1944

MR. B. M. MAY:

CONVERSION OF BUFFALO CELLOPHANE PLANT I
TO THE PRODUCTION OF "CORDURA"

At your request, we have reviewed the circumstances under which BC-1 was shut down and subsequently converted to the production of "Cordura".

This summary includes a review of events leading to the closing of BC-1, the adjustment of Buffalo Cellophane investment, Technical Division activities and expenditures, summary of estimated present investment, production, sales and rental to July 1944; and a review of our relationship with the Defense Plant Corporation as summarized by the Public Relations Department, based on our records.

Events Leading to the Closing of BC-1

In 1941 Cellophane Division had the best year in its history, with sales totaling 104,761,500 pounds. Through October of 1941 sales exceeded the entire previous year. In October 55.46 of the 56 casting machines installed were in operation.

On November 8, 1941 the Office of Production Management issued Limitation Order L-20, limiting the use of cellophane and similar transparent materials derived from cellulose to conserve the supply of chlorine, phenol and glycerin for National Defense requirements. The restricted uses included textiles, paper and paper products, decorations and novelties, household rolls, and gift wrappings. These uses, with the exception of household rolls, usually required a non-moistureproof, heavy-gauge film and moistureproof and non-moistureproof colored film. These films were manufactured in quantity at the Buffalo Plant.

The effect of the L-20 order was not immediately apparent. Some extensions on use were granted by O.P.M. in special cases. Volume held up rather well through January 1942.

In February 1942 the cumulative effects of the Limitation Order, sugar rations, tire and gasoline shortages began to be felt. The downward sales trend began to gather momentum in March as labor shortages in our customers' plants were added to their other difficulties. Volume fell off further in April to the point where 36.19 casting machines out of 56 installed machines were in operation. In Buffalo 9.01 casting machines out of 16 installed were in operation in April 1942. The sales trend from the high point in October 1941 to May 1942 and casting machines in operation were as follows:

Month	Sales	Casting Machines in Operation
October 1941	10,665,891#	55.46
November	9,382,989	54.78
December	8,127,567	47.53
January 1942	8,603,021	50.45
February	8,195,678	47.26
March	7,044,238	43.20
April	5,894,393	36.19
May	6,351,644	35.08

It was apparent that war business and metal replacement business was not developing rapidly enough to be relied upon to reverse the trend. With 20 casting machines idle and a clouded sales outlook ahead, it was decided to close down one unit of eight casting machines.

In selecting the unit to close down, a number of factors had to be considered:

1. Age and efficiency of equipment.
2. Operating costs.
3. Ability to produce wartime requirements - moistureproof film.
4. Effect of Limitation Order on certain types of production.

Comparative data on the above-mentioned factors is as follows:

1. Age and Efficiency of Equipment

Plant	Start-Up	Machine Speed	Film Width
Buffalo #1	Apr. 1924	50 MPM	45.3"
Buffalo #2	Feb. 1932	50 MPM	45.3"
Old Hickory #1	Oct. 1929	50 MPM	46.0"
Old Hickory #2	Aug. 1930	50 - 60 MPM	46.0"
Spruance #1	Nov. 1930	50 - 60 MPM	48.0"
Spruance #2	May 1937	50 - 60 MPM	48.0"
Clinton	Mar. 1941	50 MPM	48.5"

2. Operating Costs

	Buffalo	Old Hickory	Spruance	Clinton	Total
1940	.2358	.1977	.2001	-	.2092
1941	.2289	.1962	.1981	.2303	.2087
1942: Jan.	.2370	.2131	.2115	.2194	.2194
Feb.	.2562	.2303	.2210	.2328	.2338
Mar.	.2654	.2245	.2177	.2389	.2342
Apr.	.2841	.2403	.2339	.2536	.2501
May	.3087	.2409	.2425	.2572	.2573

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3. Ability to Produce Wartime Requirements - Moistureproof Film

	Coating Capacity % of Total Capacity
Buffalo	60%
Old Hickory	84
Spruance	100
Clinton	88

4. Effect of Limitation Order on Certain Types of Production

	1941 Production Exclusive to Buffalo	1943 Total Production
450 PT	5,972,675	3,451,224
450 PUT	85,253	60,142
600 PT	533,887	374,094
600 PUT	2,212,909	1,040,673
300 PC	2,319,326	409,241
300 PRC	371,525	79,080
300 PJC	39,060	-
450 PC	12,552	18,400
600 PC	13,158	29,453
300 MSC	2,057,576	1,[illegible]5,818
450 MSC	50,044	24,740
	13,667,965	6,630,865

Note: U - Unsized
C - Colored
R - Rancidity Protected
S - Heatsealing
J - Flameproof

The selection of Buffalo Plant #1 was obvious because it was the oldest plant, operated at higher costs than the other plants and was the plant most affected by Limitation Order L-20, which restricted the uses of colored and heavy-gauge film. Accordingly, the plant ceased operation on May 15, 1942 and was formally declared idle as of June 1, 1942.

Adjustment of Buffalo Cellophane Investment

The investment in BC-1 was gradually adjusted over a period of two years, corresponding approximately with the progress of the "Corduma" conversion. The following tabulation presents a reconciliation of the Cellophane Division investment at Buffalo before and after adjustments:

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CONCILIATION OF BUFFALO CELLOPHANE FILM INVESTMENT

	Cellophane Film (Ex. A and B)			(A)	(B)	
	Total	*Trans. to Others	Cellophane	Moisture Proofing Towers	From Rayon Common Facilities	Total Cellophane Film
BC-1			$3,072,283	289,645	823,347	4,185,275
BC-2			2,917,077	337,275	823,347	4,077,699
Investment 3/31/42 before Transfer BC-1	$6,189,704	200,344	5,989,360	626,920	1,646,694	8,262,974
Add:						
**Emergency Investment	104,676		104,676	-	-	104,676
Reallocation of Cellophane General	90,876	173,367	- 82,491	-	-	- 82,491
Less:						
Reallocation of Rayon General	-	-	-	-	584,920	584,920
Transfer to "Cordura"	2,150,061	-	2,150,061	-	-	2,150,061
Write Off to Depreciation	375,717	-	375,717	-	-	375,717
Investment after Transfer BC-1	3,859,478	373,711	3,485,787	626,920	1,061,774	5,174,461
Add:						
Transfer from Technical Div. January 1944				56,153		56,153
Miscellaneous Construction	45,521		45,521	43,839		89,360
Cellophane Division Film Investment 7/31/44	$3,904,999	373,711	3,531,288	726,912	1,061,774	5,319,974

*Summary of Cellophane Film Investment Transferred to Other Products:

	3/31/42	7/31/44
P.V. Film	-	8,845
"Cel-O-Seal"	$103,025	111,024
Sponges	13,686	19,923
"Cordura"	-	133,375
Staple	83,633	100,544
	$200,344	373,711

over provision for new areas and facilities for Cellophane necessitated by "Cordura" Project

Technical Division Activities

The Technical Division started its activities on developing a process to manufacture "Cordura" on Cellophane casting machines on January 15, 1942 at Spruance. Activities were transferred to Buffalo in April 1942. The development was essentially completed by November of the same year. Approximately 2,000 pounds of the yarn were produced experimentally during December 1942. Production began on February 23, 1943 on one-half (50 nozzles) of the #4 casting machine.

The work of the Technical Division was covered by the following three projects:

XX-198: Spinning Textile Fibers in a Cellophane Plant.

Appropriations - $146,000
Actual Expenditures - 145,429

Part I was authorized on January 23, 1942 and the project was closed on August 14, 1944.

Of the total amount spent on this project,
$34,602 applied to staple and tow,
12,611 to "Cordura" at Spruance, and
99,390 to "Cordura" at Buffalo.

XX-146: Conversion of #4 Casting Machine for "Cordura".

Appropriations - $196,000
Actual expenditures - $194,977 estimated
(This project has not as yet been closed)

Part I was authorized on June 8, 1942.

An amount of $134,872, representing equipment added to the #4 casting machine, was capitalized and billed to FPC.

XX-176: Engineering Assistance on #337 "Cordura" Buffalo Cellophane Plant.

Appropriations - $83,000
Actual expenditures - This project has not as yet been closed but actual expenditures may be approximately equal to the amount appropriated.

It is estimated that approximately $4,288 of this expenditure will be capitalized, representing experimental equipment now permanently located on #4 casting machine.

The expenditures under the three Technical Division projects, after deducting the amounts capitalized and the amounts spent on staple and tow, total approximately $250,344. This amount may change somewhat after final disposition of XX-176.

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Summary of Investment

Cellophane Investment Transferred to Rayon Division	$2,150,061
Allocation of Facilities	1,578,830
Construction Project 9793 (du Pont) Total Appropriated -- $448,000 Estimated to be Capitalized - -	185,000
Total du Pont Investment	$3,913,891
DPC Appropriations	$2,734,000
Estimated Total Investment	$6,647,891

Summary of Production, Sales and Rental

As of July 31, 1944, a total of 5,509,613 pounds of yarn and salable waste were produced. On this poundage, a total of $482,091 of rental was paid or accrued at the rate of 8.7¢ per pound.

As of July 31, 1944, a total of 4,811,673 pounds of yarn was sold with an operative loss of $919,174, or 19.1¢ per pound.

Relations with DPC

The following review of relations with DPC in regard to conversion of BC-1 was taken from the summary of the Public Relations Department, dated March 9, 1944. We believe it to be an adequate presentation of our relationship with the Defense Plant Corporation in regard to the conversion of Buffalo Cellophane Plant I:

"Buffalo Cellophane Plant 1, one of a group of Rayon Department plants at Buffalo, New York, was the original du Pont cellophane manufacturing plant. However, at the time of the Government expansion program in high tenacity rayon yarn, the Buffalo Plant represented idle capacity. Production had been curtailed following the issuance by the Government in November 1941 of Limitation Order L-20 which reduced considerably the uses to which cellophane might be put and necessitated a corresponding reduction in cellophane production.

"Coincident with the curtailment of production, du Pont began preliminary work to determine the feasibility of using a converted cellophane casting machine for the production of "Cordura" yarn. The work progressed until in December 1942, the month in which the Government letter of intent was issued, 1,990 pounds of "Cordura" yarn were produced experimentally in the Buffalo Plant.

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Meanwhile, after submitting Proposition D, in July, for the Buffalo conversion, the du Pont management had authorized, beginning in August, detailed design work for the conversion of Buffalo's eight casting machines to "Cordura". The Company was thus in a position to proceed promptly after receiving the first DPC letter.

"In this letter DPC designated the project as Plancor 1613 and authorized du Pont to purchase machinery and equipment at a cost not to exceed $500,000. The procurement of machinery was started on January 19, 1943 with the objective of starting manufacture on November 1, and full operation was scheduled for December 1, 1943. In a second letter of intent, dated February 2, 1943, DPC authorized necessary engineering services with cost limited to $100,000. Field construction work was begun on April 21. As du Pont had submitted, early in February, an estimate of $2,122,000 as the cost of that portion of the conversion to be financed by DPC, the Government, on February 26, issued a third letter of intent, increasing to $800,000 the limit of expenditures for materials and equipment, and to $600,000 the limit of the cost of engineering services and field work. These letters permitted the work to proceed pending the preparation of formal agreements. The du Pont-financed portion of the work, estimated to cost $210,000 and involving construction work and additions of a permanent nature, was approved by the Company on March 10.

"The preliminary experimentation initiated by du Pont permitted production of "Cordura" for DPC to be started at Buffalo at a very early date. Production began officially on February 23, 1943 on one half of No. 4 casting machine, the remaining half being placed in operation on March 7. Over 1,000,000 pounds of 2200 denier yarn were produced on this one machine before production was started on other equipment.

"The project was about 15% complete when, in June 1943, formal contracts were signed by DPC and du Pont. The Agreement of Lease, dated June 14, authorized the acquisition and installation of equipment at Buffalo, at a cost to DPC not in excess of $2,122,000, for the ultimate production of 8,600,000 pounds per year of high tenacity rayon. DPC agreed to lease the equipment to du Pont for a period ending December 31, 1947, with a provision for an extension for two more years. Du Pont was to pay as rental 6-4/5¢ for each pound of high tenacity rayon produced with the understanding that the rental was to cease when payments had reached an amount equal to DPC's expenditures under this agreement plus interest at 4% per annum. A Supplemental Agreement of the same date covered in more detail the engineering and construction services to be supplied by du Pont. It specifically stated that du Pont was to be reimbursed for all costs incurred prior to the execution of the agreement and after June 1, 1942.

"On June 22 du Pont presented to DPC a supplemental estimate calling for an increase in expenditures of $343,300 by DPC and $129,800 by du Pont. The new estimate covered items found necessary due to changes in process and items previously omitted

C 6336

which had been found essential as design progressed. A supplemental priority application for the additional materials to complete the Buffalo conversion was filed during the first week in July but Government approval was delayed due to the fact that the Textile Branch of WPB had exceeded its third quarterly allotment on textile machinery, and because the expansion of the rayon tire cord program was being temporarily held up pending an investigation of the relative merits of rayon and cotton for this purpose. Inasmuch as the material listed in this application was necessary to start up the project, the delay necessitated the postponement of the estimated date of first operations until January 1, 1944, with completion a month and a half later. Approval of the supplemental project was not obtained until September, but in the meantime the du Pont management, on August 16, had authorized the Company's part of the project, and, early in September, ordered equipment to be purchased for the Government's portion of the work up to a total of $125,000. An amendatory Agreement of Lease, dated September 28, 1943, was drawn up to provide the increased expenditure by DPC of $343,000, bringing the total authorized cost to $2,465,000. Including the $339,800 to be spent by du Pont, the estimated cost of the entire conversion became $2,805,100. The rental to be paid to DPC by du Pont was increased from 6-8/10¢ to 7-9/10¢ for each pound of "Cordura" produced. *

"The importance of the high tenacity rayon program was emphasized by a WPB directive in September 1943 instructing twelve producers of cotton and rayon tire cord and rayon fuel cell yarns to operate all facilities beginning October 1 for maximum production. W. J. Deutch, WPB, wrote du Pont on September 29, 1943: 'To avoid any misunderstanding as to the urgency of this project we would like to advise you that its urgency is considered at par with other 'must programs' such as escort vessels, aviation gasoline and synthetic rubber.'

"During the first week in October 1943 the construction force at Buffalo was placed on a 54-hour week. However, the work did not proceed as rapidly as scheduled due primarily to the fact that Buffalo had become a critical labor area and there was difficulty in getting a sufficient supply of certain types of skilled labor; particularly lead burners. The estimated date for full production at Buffalo had already been changed to March 1944 because of the added work, and now had to be revised to April and finally to June 1944. Du Pont reported this delay to WPB in November and stated that the contractors' inability to complete the construction on the original date scheduled was caused by the inability or unwillingness of the Union at Buffalo to supply sufficient lead burners to meet the original construction schedule. Labor conditions improved somewhat following a conference in early December, but still remained unsatisfactory.

"Operation was started on the second casting machine on January 25, 1944, a little over a year after the work had been first begun. While the balance of the conversion work had been under way, the production on the first casting machine to be converted had

* (Subsequent parts brought the total du Pont appropriation on Project 9793 to $448,000)

C-6336

gradually built up. As of December 31, 1943, 1,011,000 pounds of "Cordura" had been manufactured in this manner. The production estimate of 2200 denier tire yarn for the Buffalo plant was 7,815,000 pounds for the year 1944.

"A check estimate indicated a total cost of $2,734,000, an overrun of $268,700 or 10.9% as compared with the original and supplemental estimates for the Government financed portion of the conversion, and DPC was requested to authorize the necessary additional funds. The total overrun, including the work to be financed by du Pont, was estimated to be $315,948. Material costs had proved to be somewhat lower than originally estimated but labor costs had exceeded earlier estimates by approximately $354,000, due chiefly to the abnormal labor conditions existing in the Buffalo area. These conditions necessitated the use of skilled workmen in unskilled jobs, with a resultant increase in hourly rates of pay. Furthermore, the scarcity of labor necessitated longer hours per week, and, together with work stoppages, resulted in inefficient work and job stretch-out, all of which contributed to the high cost of construction labor.

"A second amendment to the Agreement of Lease, dated March 8, 1944, provided for the increase in Government expenditures to a maximum of $2,734,000. The rental to be paid DPC by du Pont was increased to 8-3/4¢ per pound of high tenacity rayon produced, with the understanding that it would be reduced proportionately if the ultimate cost of the project to the Government should prove to be less than the $2,734,000 estimate."

Manfred Keller

C-6336

GOV'T EXHIBIT NO. 76....
Civil Action 1236

DU PONT

DU PONT CELLOPHANE COMPANY, INC.

Manufacturers of Cellulose Film

EMPIRE STATE BUILDING
350 FIFTH AVENUE
NEW YORK, N.Y.

February 18, 1936.

FROM THE PRESIDENT

TO: EXECUTIVE COMMITTEE
E.I. DU PONT DE NEMOURS & COMPANY.
L.A. YERKES
FROM: L.A. YERKES, PRESIDENT,
DU PONT CELLOPHANE COMPANY.

ANNUAL COMPETITIVE REPORT - 1935

There are a few points in the "Cellophane" Annual Competitive Report, attached, which I should like to bring to your attention.

Sylvania during the last quarter of 1935 reached 23.4% of the Moistureproof sales, a considerable gain. Furthermore they improved their position versus us from 17.1% for the year 1934 to 20.1% for the year 1935. For the 3 months' period in 1935 from the fourth month to the end of the year, Sylvania's percentage was a little under 13%, so that in approximately 7 years they have very decidedly improved their position, from 13% to 20.1%.

Sylvania's allowable percentage of total Moistureproof sales under our contract was 23% for the year 1935, and for 1936 is 25%.

If we eliminate the cigarette sales from our totals, we find that Sylvania's Moistureproof sales in 1935 were 24.3% of Du Pont's Moistureproof sales: in the year 1934 they were 20.8%; and in the year 1935 26.9%, rising as high as 44.7% in the last 3 months' period of 1935.

I think the reasons for this loss in our competitive position are clearly set forth in the attached report. They might be summarized as follows:

First - The obtaining by competition of a percentage of cigarette business, which heretofore has been 100% ours.

Second - The continued superiority of Sylvania's product in certain classes of the cigar business.

Third - The failure of our film in one or two important places due to brittleness and poor machine operation.

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We naturally make every effort to hold on to the entire cigarette business, but it is my belief that during the years it is only natural to expect that competition will enter this field to some extent, and it is practically impossible to keep them entirely out. We believe they are today obtaining 10% of the Reynolds business but none from the other companies.

As to cigars, as we have reported before we think we now have a film which on machine operation is competitive in every way and we expect to regain at least part of our position in this industry.

The failure of our film in the case of the Lorillard Tobacco Company and the big manufacturer of bags is an operating item, to which we are obviously giving the greatest attention.

L.A. YERKES,
PRESIDENT.

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February 11, 1936.

MR. F. G. HESS
ASS'T SECRETARY
NEW YORK.

ANNUAL COMPETITIVE REPORT - 1935

We are handing you herewith twelve copies of our annual Competitive statistical report for the year 1935 which has been prepared by our Sales Record Section.

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T. E. HINES

ASS'T GENERAL MANAGER.

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ANNUAL COMPETITIVE REPORT --- 1935

DU PONT CELLOPHANE COMPANY, INC.

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SALES RECORD SECTION
FEBRUARY 10, 1936

DU PONT CELLOPHANE COMPANY, INC.

ANNUAL COMPETITIVE REPORT

COMPETITIVE SITUATION SUMMARIZED

SALES OF VISCOSE TRANSPARENT CELLULOSE SHEETING DURING 1935, CONSIDERING THE VOLUME OF THE SYLVANIA INDUSTRIAL CORPORATION AND OURSELVES, IS ESTIMATED TO HAVE EXCEEDED THE 1934 TOTAL BY 14.5%. COMBINED SALES FOR BOTH COMPANIES WERE ESTIMATED TO HAVE BEEN 48,018,800 POUNDS IN 1934. THE 1935 FIGURE IS PLACED AT 54,964,800 POUNDS, AN INCREASE OF 6,946,000 POUNDS.

DURING 1935 SYLVANIA'S SALES ARE ESTIMATED TO HAVE TOTALLED 11,537,400 POUNDS, AND OUR OWN SALES WERE 43,427,400 POUNDS, PROPORTIONATELY 21% AND 79% OF THE COMBINED VOLUME. THIS COMPARES WITH AN ESTIMATED COMPETITIVE VOLUME OF 9,200,000 POUNDS IN 1934 AND DU PONT SALES OF 38,818,800 POUNDS, AND RATIOS OF 19.2% FOR SYLVANIA AND 80.8% FOR OURSELVES.

BASED ON THE FOREGOING CHANGES IN RELATIVE STANDING, THERE HAS BEEN AN APPARENT NET TRANSITION OF BUSINESS DURING THE YEAR OF 984,000 POUNDS IN FAVOR OF SYLVANIA.

IN ACCOMPLISHING THIS COMPETITIVE GAIN, SYLVANIA'S SALES ARE ESTIMATED TO HAVE INCREASED 25.4% OVER 1934, COMPARED TO A GAIN IN DU PONT VOLUME OF 11.9%. IN TERMS OF POUNDAGE, SYLVANIA'S INCREASE WAS 2,337,400 POUNDS, DU PONT'S - 4,608,600 POUNDS.

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COMPETITOR'S POSITION IMPROVED IN MOISTUREPROOF SHEETING SALES

MAINLY RESPONSIBLE FOR SYLVANIA'S GAIN IN POSITION WAS THE GROWTH OF ITS MOISTUREPROOF VOLUME WHICH ROSE FROM 17.2% OF THE TOTAL IN THIS CLASSIFICATION IN 1934 TO 20.1% IN 1935. SALES OF PLAIN TRANSPARENT SHEETING BY SYLVANIA SHOW AN INCREASE FROM 22.8% TO 23.0% OF THE TOTAL TONNAGE OF THIS KIND. THESE CHANGES ARE SUMMARIZED IN THE FOLLOWING TABULATION, WHICH ALSO PROVIDES COMPARISON OF THE RELATIVE VOLUMES BY KIND OF STOCK.

	PLAIN SHEETING		MOISTUREPROOF SHEETING		TOTAL	
1934	POUNDS	%	POUNDS	%	POUNDS	%
DU PONT	12,731,600	77.2	26,087,200	82.8	38,818,800	80.8
SYLVANIA	3,766,300	22.8	5,433,700	17.2	9,200,000	19.2
	16,497,900	100.0	31,520,900	100.0	48,018,800	100.0
1935						
DU PONT	13,480,500	77.0	29,946,900	79.9	43,427,400	79.0
SYLVANIA	4,020,000	23.0	7,517,400	20.1	11,537,400	21.0
	17,500,500	100.0	37,464,300	100.0	54,964,800	100.0

FROM THE FOREGOING FIGURES, WE SEE THAT SYLVANIA'S GAIN IN MOISTUREPROOF POUNDAGE WAS 2,083,700 OR 38.3%, WHILE OUR OWN GAIN IN MOISTUREPROOF SALES TOTALLED 3,859,700 POUNDS OR 14.8%. SALES OF PLAIN TRANSPARENT SHEETING BY SYLVANIA SHOW AN INCREASE OF 253,700 POUNDS OR 6.7%, AND SALES OF PLAIN CELLOPHANE SHOW A GAIN OF 748,000 POUNDS OR 5.9%.

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COMPARATIVE SALES BY INDUSTRY

TO SHOW SPECIFICALLY THE SOURCES FROM WHICH THE COMPETITOR HAS BEEN ABLE TO SECURE THE GAINS NOTED, WE HAVE TABULATED BELOW DETAILED COMPARATIVE FIGURES SHOWING DU PONT AND ESTIMATED COMPETITIVE SALES BY INDUSTRY FOR 1934 AND 1935.

SYLVANIA

	1935 Sales Pounds	% *	1934 Sales Pounds	% *	Change
Cigars	1,230,000	40.2	602,000	21.4	+ 628,000
Cigarettes & Tobacco	156,000	1.5		.0	+ 156,000
Baked Goods	3,484,000	29.8	2,723,000	28.4	+ 761,000
Candy	760,000	24.4	700,000	27.0	+ 60,000
Meat	149,000	25.4	250,000	28.2	- 101,000
Other Food	251,000	15.5	210,000	17.1	+ 41,000
Textiles & Hosiery	278,000	33.3	241,800	26.6	+ 36,200
Perf., Soap, Drugs	50,000	5.7	78,000	9.5	- 28,000
Paper Products	93,000	11.6	105,000	12.4	- 12,000
Miscellaneous	351,400	17.6	219,200	13.8	+ 132,200
Agents	1,500,000	23.2	1,251,000	23.6	+ 249,000
Converters	3,060,000	25.0	2,695,000	23.9	+ 365,000
Export	175,000	11.3	125,000	11.1	+ 50,000
	11,537,400	21.0	9,200,000	19.2	+ 2,337,400

DU PONT

Cigars	1,827,000	59.8	2,205,000	78.6	- 378,000
Cigarettes & Tob.	10,003,000	98.5	9,011,000	100.0	+ 992,000
Baked Goods	8,204,000	70.2	6,868,000	71.6	1,336,000
Candy	2,350,000	75.6	1,896,000	73.0	+ 454,000
Meat	437,000	74.6	638,000	71.8	- 201,000
Other Food	1,372,000	84.5	1,018,000	82.2	+ 354,000
Textiles & Hosiery	558,000	66.7	667,000	73.4	- 109,000
Perf., Soap, Drugs	822,000	94.3	746,000	90.5	+ 76,000
Paper Products	706,000	88.4	740,000	87.6	- 34,000
Miscellaneous	1,643,000	82.4	1,369,000	86.2	+ 274,000
Agents	4,975,000	76.8	4,056,000	76.4	+ 919,000
Converters	9,163,000	75.0	8,601,000	76.1	+ 562,000
Export	1,367,000	88.7	1,004,000	88.9	+ 363,000
	43,427,000	79.0	38,819,000**	80.8	+ 4,608,000

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* REPRESENTS PERCENTAGE OF TOTAL BUSINESS SECURED IN EACH INDUSTRY.

** DOES NOT INCLUDE MILL ROLL SALES TO SYLVANIA IN 1934 IN THE AMOUNT OF 303,800 POUNDS.

IN TERMS OF CHANGES IN RELATIVE STANDING AND VOLUME IT IS EVIDENT FROM THE FOREGOING TABULATION THAT THE COMPETITOR'S MOST IMPORTANT GAINS HAVE COME MAINLY FROM THE CIGAR, CIGARETTE AND TOBACCO, BAKED GOODS AND CONVERTER CLASSIFICATIONS - INDUSTRIAL OUTLETS WHOSE VOLUME IS PREPONDERANTLY IN THE MOISTUREPROOF DIVISION. ATTENTION, THEREFORE, LOGICALLY CENTERS ON CONSIDERATION OF THESE INDUSTRIES AND THE CONDITIONS RESPONSIBLE FOR OUR LOSSES IN THEM.

INDUSTRY DISCUSSION

SALES BY SYLVANIA TO THE CIGAR NDUSTRY ARE ESTIMATED TO HAVE BEEN 1,230,000 POUNDS IN 1935 AND OUR SALES WERE 1,827,000 POUNDS, OR A COMBINED TOTAL OF 3,057,000 POUNDS. IT IS NOTED SYLVANIA'S INCREASE REPRESENTS A GAIN OF 628,000 POUNDS, AND THAT THE COMPETITOR'S RELATIVE POSITION IMPROVED FROM 21.4% TO 40.2% OF THE TOTAL CONSUMPTION IN THIS INDUSTRY. THIS GAIN BY THE COMPETITOR REPRESENTS A TRANSITION OF BUSINESS TO HIS CREDIT OF 576,000 POUNDS, THE BALANCE OF HIS INCREASE RESULTING FROM THE ENLARGED CONSUMPTION OF CIGARS DURING 1935.

SEVERAL OF THE MORE IMPORTANT CIGAR MANUFACTURERS, AS WELL AS A NUMBER OF SMALLER CONCERNS, TRANSFERRED ALL OR PART OF THEIR REQUIREMENTS TO THE COMPETITOR BECAUSE CERTAIN TYPES OF THEIR WRAPPING MACHINES WERE FOUND TO HANDLE THE COMPETITIVE PRODUCT MORE EFFICIENTLY THAN WAS POSSIBLE WITH CELLOPHANE. THIS SITUATION. TO-

GETHER WITH CERTAIN OTHER FACTORS RELATING TO THE QUALITY OF OUR MATERIAL, WAS RESPONSIBLE FOR AN EXCESS OF 80% OF THE COMPETITIVE LOSS SUFFERED BY US AND, WITH THE GROUP OF ACCOUNTS REFERRED TO, ACCOUNTED FOR APPROXIMATELY 487,000 POUNDS OF THE COMPETITOR'S NET GAIN. MOST IMPORTANT OF THE REASONS FOR OTHER GAINS MADE BY THE COMPETITOR WAS HIS ALLOWANCE OF MORE LIBERAL CREDIT TERMS, BY WHICH HE WAS ABLE TO SECURE AN ADDED 60,000 POUNDS.

PRIOR TO 1935 WE HAD BEEN SUCCESSFUL IN SECURING PRACTICALLY 100% OF THE AVAILABLE BUSINESS OF THE CIGARETTE AND SMOKING TOBACCO MANUFACTURERS. HOWEVER, ABOUT THE MIDDLE OF THE YEAR THE R. J. REYNOLDS TOBACCO COMPANY, MANUFACTURERS OF "CAMELS" BEGAN TO BUY A PORTION OF THEIR REQUIREMENTS FROM THE COMPETITOR. DIFFICULTIES WITH OUR SHEETING, PARTICULARLY BRITTLENESS, WHICH DEVELOPED ABOUT THIS TIME WAS GIVEN AS AN EXCUSE BY THE CUSTOMER. ACCORDING TO OUR BEST ESTIMATES, WE LOST APPROXIMATELY 100,000 POUNDS OF BUSINESS AS A RESULT OF THIS MOVE. OUR SALES TO REYNOLDS WERE 2,670,000 POUNDS IN 1935 AS COMPARED TO 2,340,000 POUNDS IN 1934.

P. LORILLARD & COMPANY, FOLLOWING MECHANICAL DIFFICULTIES IN THE LATTER PART OF 1934 IN THE USE OF "CELLOPHANE" ON THEIR "BRIGGS" SMOKING TOBACCO UNIT, PLACED PRACTICALLY THE ENTIRE 1935 BUSINESS FOR THIS UNIT WITH SYLVANIA - AN ESTIMATED LOSS TO US OF 56,000 POUNDS.

IN THE BAKING INDUSTRY OUR LOSSES WERE CONFINED MAINLY TO A LIMITED GROUP OF LARGE USERS OF TRANSPARENT SHEETING. THE

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NATIONAL BISCUIT COMPANY, FORMERLY AN ALMOST EXCLUSIVE USER OF OUR MATERIAL, PURCHASED AN ESTIMATED 100,000 POUNDS FROM SYLVANIA DURING 1935 ON A PURCHASING POLICY BASIS TO ENCOURAGE THE COMPETITIVE SUPPLIER. WARD BAKING COMPANY, WHICH HAS SPLIT ITS BUSINESS CONSISTENTLY IN THE PAST BECAUSE OF SYLVANIA'S PRICE POLICY ON SMALL QUANTITIES, OUR LACK OF SECOND GRADE SHEETING AT CERTAIN TIMES, AND THE CONTENTION DU PONT HAS FORCED UNPROFITABLE CONDITIONS ON THE INDUSTRY BY OUR PROMOTION OF A HIGHER PRICED WRAPPING MATERIAL, IS ESTIMATED TO HAVE FAVORED THE COMPETITOR WITH A VOLUME APPROXIMATELY 160,000 POUNDS ABOVE 1934 COMPETITIVE PURCHASES.

OTHER IMPORTANT LOSSES WERE 60,000 POUNDS THROUGH THE QUALITY BAKERS ASSOCIATION, A PURCHASING SYNDICATE WITH WHOM SYLVANIA HAS CONTRACT RELATIONS, AND 50,000 POUNDS THROUGH PIE BAKERS, INC., BECAUSE OF MECHANICAL DIFFICULTIES.

MOST IMPORTANT COMPETITIVE GAIN MADE BY DU PONT WAS WITH THE GENERAL BAKING COMPANY, WHOSE PURCHASES FROM US INCREASED FROM 493,000 POUNDS IN 1934 TO 839,000 POUNDS IN 1935. DURING 1935 WE WERE SUCCESSFUL IN ELIMINATING COMPETITIVE MATERIAL ENTIRELY WITH THIS ACCOUNT, AND IT IS ESTIMATED APPROXIMATELY 200,000 POUNDS OF BUSINESS CAME TO US WHICH ~~OTHERWISE~~ MIGHT HAVE BEEN ENJOYED BY THE COMPETITOR.

ACCORDING TO OUR ESTIMATES, THE TRANSITION OF BUSINESS TO SYLVANIA IN THE BAKING INDUSTRY IN 1935 TOTALLED APPROXIMATELY 166,000 POUNDS, AND WE HAVE ACCOUNTED FOR LOSSES OF 370,000 POUNDS AND A GAIN OF 200,000 POUNDS IN THE FOREGOING DETAIL COVERING THE

MOST IMPORTANT CHANGES. THERE WERE, OF COURSE, NUMEROUS OTHER SHIFTS IN BUSINESS WITH SMALLER ACCOUNTS, BUT IN THE AGGREGATE THESE WERE LARGELY OF A COMPENSATING CHARACTER.

SYLVANIA'S COMPETITIVE GAIN IN THE CONVERTER CLASSIFICATION OF APPROXIMATELY 139,000 POUNDS WAS SECURED ALMOST ENTIRELY AS THE RESULT OF SECURING A LARGER SHARE OF THE BUSINESS OF ONE OF THE LARGEST MAKERS OF TRANSPARENT BAGS. DIFFICULTIES EXPERIENCED IN FABRICATING BAGS WITH OUR MOISTUREPROOF MATERIAL WAS THE PRINCIPAL REASON FOR THIS CHANGE. THE VOLUME OF BUSINESS INVOLVED WITH THIS SINGLE ACCOUNT MORE THAN OFFSET LARGE GAINS WE WERE ABLE TO MAKE WITH THREE IMPORTANT CONVERTERS WHO, DURING 1934, USED LARGELY COMPETITIVE STOCK.

IN THE CANDY INDUSTRY OUR AGGRESSIVE PROMOTION OF "CELLOPHANE" FOR WRAPPING INDIVIDUAL PIECES DURING 1935 ENABLED US TO SECURE A LARGER SHARE OF THIS INDUSTRY'S BUSINESS THAN IN 1934. IMPROVED COMPETITIVE STANDING WITH THE MAJOR PACKERS ENABLED US TO SHOW A RELATIVE GAIN IN THE MEAT PACKING INDUSTRY DESPITE THE DECLINE IN ACTUAL VOLUME RESULTING FROM THE A.A.A. HOG PROGRAM. GROWTH OF VOLUME WITH LARGE UNITS OF BUSINESS IN THE "OTHER FOODS" CLASSIFICATION, AND THE SUCCESS OF OUR ACTIVE PROMOTION THROUGHOUT THE WIDE RANGE OF PRODUCTS COMPRISING THIS GROUP ALSO RESULTED IN AN IMPROVED COMPETITIVE STATUS FOR DU PONT.

DESPITE AN APPARENT MARKED GAIN IN THE TEXTILE INDUSTRY BY THE COMPETITOR, THERE WAS LITTLE ACTUAL SHIFT OF BUSINESS. OUR SALES TO THE SHIRT BRANCH OF THE TEXTILE INDUSTRY, LARGEST OUTLET

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IN THIS FIELD, DECLINED 200,000 POUNDS AS A RESULT OF DISCONTINUANCE OF CELLOPHANE, DUE TO VICIOUS PRICE COMPETITION AND THE PROMOTION OF THE STIFF FUSED COLLAR SHIRT. LOSSES SUSTAINED ON SHIRTS WERE PARTIALLY OFFSET BY OUR PROGRESS ON WASH GOODS WHICH, INCIDENTALLY, WAS SHARED BY THE COMPETITOR. SYLVANIA, HOWEVER, HAS NOT HAD AS LARGE A PROPORTION OF ITS VOLUME IN THE SHIRT FIELD, AND THEREFORE THE COMPETITOR'S GROSS GAINS WERE NOT REDUCED IN PROPORTION TO OUR OWN.

DU PONT WAS ABLE TO INCREASE ITS POSITION AND VOLUME WITH PERFUME, SOAP AND DRUG ACCOUNTS BOTH THROUGH EXPANSION OF ESTABLISHED BUSINESS AND MINOR COMPETITIVE GAINS. IN THE PAPER PRODUCTS INDUSTRY, DESPITE A SLIGHT IMPROVEMENT IN OUR RELATIVE POSITION, VOLUME DECLINED 34,000 POUNDS AS A RESULT OF DISCONTINUANCE OF TRANSPARENT WRAPPING BY SEVERAL MANUFACTURERS OF FACIAL TISSUE BECAUSE OF A PRICE WAR. SALES TO KIMBERLY CLARK, LARGEST ACCOUNT IN THIS FIELD, DECLINED 135,000 POUNDS IN 1935 AS COMPARED TO 1934. NEW BUSINESS, DEVELOPED PRINCIPALLY ON LUNCHEON ACCESSORIES, OFFSET LOSSES ON FACIAL TISSUE TO THE EXTENT OF 100,000 POUNDS, BUT GAINS ON OTHER PAPER PRODUCTS WERE INSUFFICIENT TO MATERIALLY REDUCE THE TOTAL DECREASE.

IN THE REMAINING INDUSTRY GROUP COVERING MISCELLANEOUS UNCLASSIFIED ACCOUNTS WE SHOW A GAIN IN POSITION FOR SYLVANIA FROM 13.8% OF THE TOTAL IN 1934 TO 17.6% IN 1935. THIS SITUATION RESULTS, IN THE MAIN, FROM A REDUCTION IN THE VOLUME OF ONE OF OUR PRINCIPAL ACCOUNTS IN THIS GROUP BY A QUANTITY OF 67,000 POUNDS

DUE TO A PRICE WAR, AND COMPETITIVE LOSSES OF 44,000 POUNDS TO TWO OTHER IMPORTANT USERS BECAUSE OF QUALITY TROUBLE WITH OUR MATERIAL.

* * *

IN THE ABOVE DETAIL WE HAVE DESCRIBED THE PRINCIPAL COMPETITIVE CHANGES IN THE VARIOUS CONSUMING INDUSTRIES. IF WE CONSIDER ONLY THE CIGAR, CIGARETTE AND TOBACCO, BAKED GOODS AND CONVERTER CLASSIFICATIONS IN WHICH THE MAJOR COMPETITIVE LOSSES ARE CONCENTRATED, IT WILL BE NOTED WE ACCOUNT FOR 1,047,000 POUNDS OF BUSINESS WHICH WAS TRANSFERRED TO THE COMPETITOR'S BOOKS IN 1935, AND ONLY THE FACT WE WERE ABLE TO MAKE PARTIALLY COMPENSATING GAINS IN OTHER FIELDS HELD THE NET COMPETITIVE LOSS TO THE 984,000 POUNDS SHOWN ON THE FIRST PAGE OF THIS REPORT.

AS INDICATED, THE MAJORITY OF THIS LOSS CAN BE ATTRIBUTED DIRECTLY TO CERTAIN SPECIALIZED QUALITIES OF THE COMPETITOR'S MOISTUREPROOF FILM, A SITUATION OF PARTICULAR EFFECT IN THE CIGAR INDUSTRY. THE REMAINING MAJOR LOSSES CAN BE ASCRIBED GENERALLY TO MATTERS OF PURCHASING POLICY AS IN THE CASE OF THE NATIONAL BISCUIT COMPANY AND WARD BAKING COMPANY. THE SIGNIFICANT POINT IN THIS CONNECTION IS THAT DESPITE THE NORMAL TENDENCY OF LARGER ORGANIZATIONS TO SPLIT THEIR REQUIREMENTS AMONG SEVERAL SUPPLIERS, THE COMPETITOR'S STRENUOUS SOLICITATION AND OFFERING OF A MOISTUREPROOF SHEETING MANUFACTURED UNDER LICENSE FROM US, WE HAVE ENJOYED FOR SEVERAL YEARS PRACTICALLY THE ENTIRE BUSINESS OF THESE ACCOUNTS, AND EVEN IN THE FACE OF THE COMPETITIVE LOSSES INDICATED, OUR PER-

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CENTAGE OF THE TOTAL BUSINESS WITH THESE CONCERNS IS NOT GREATLY REDUCED.

FOR FURTHER COMPARATIVE PURPOSES, WE HAVE PROVIDED ON THE FOLLOWING PAGE A TABULATION OF DU PONT'S AND SYLVANIA'S ESTIMATED SALES BY QUARTERS FOR 1934 AND 1935.

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DU PONT AND SYLVANIA SALES 1934-1935

PLAIN TRANSPARENT	SYLVANIA	%	DU PONT	%	TOTAL P. T.
1934					
1ST QUARTER	893,000	20.7	3,417,800	79.3	4,310,800
2ND "	802,000	23.0	2,681,300	77.0	3,483,300
3RD "	937,000	23.7	3,023,400	76.3	3,960,400
4TH "	1,134,300	23.9	3,609,100	76.1	4,743,400
TOTAL	3,766,300	22.8	12,731,600	77.2	16,497,900
1935					
1ST QUARTER	1,014,000	23.8	3,249,000	76.2	4,263,000
2ND "	936,000	25.1	2,797,900	74.9	3,733,900
3RD "	990,000	23.0	3,312,800	77.0	4,302,800
4TH "	1,080,000	20.8	4,120,800	79.2	5,200,800
TOTAL	4,020,000	23.0	13,480,500	77.0	17,500,500
% INCR. OVER 1934	6.7%		5.9%		6.1%
MOISTUREPROOF					
1934					
1ST QUARTER	1,200,100	17.1	5,809,200	82.9	7,009,300
2ND "	1,516,500	18.4	6,721,100*	81.6	8,237,600
3RD "	1,267,100	15.0	7,166,500*	85.0	8,433,600
4TH "	1,450,000	18.5	6,390,400	81.5	7,840,400
TOTAL	5,433,700	17.2	26,087,200	82.8	31,520,900
1935					
1ST QUARTER	1,261,500	15.6	6,829,300	84.4	8,090,800
2ND "	1,860,100	19.3	7,777,600	80.7	9,637,700
3RD "	2,105,100	21.1	7,873,000	78.9	9,978,100
4TH "	2,290,700	23.5	7,467,000	76.5	9,757,700
TOTAL	7,517,400	20.1	29,946,900	79.9	37,464,300
% INCR. OVER 1934	38.3%		14.8%		18.9%
TOTAL					
1934					
1ST QUARTER	2,093,100	18.5	9,227,000	81.5	11,320,100
2ND "	2,318,500	19.8	9,402,400	80.2	11,720,900
3RD "	2,204,100	17.8	10,189,900	82.2	12,394,000
4TH "	2,584,300	20.5	9,999,500	79.5	12,583,800
TOTAL	9,200,000	19.2	38,818,800	80.8	48,018,800
1935					
1ST QUARTER	2,275,500	18.4	10,078,300	81.6	12,353,800
2ND "	2,796,100	20.9	10,575,500	79.1	13,371,600
3RD "	3,095,100	21.7	11,185,800	78.3	14,280,900
4TH "	3,370,700	22.5	11,587,800	77.5	14,958,500
TOTAL	11,537,400	21.0	43,427,400	79.0	54,964,800
% INCR. OVER 1934	25.4%		11.9%		14.5%

* SALES OF MILL ROLLS DEDUCTED.

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ACTIVITY OF OTHER TRANSPARENT SHEETING PRODUCERS

TO SECURE A COMPLETE PICTURE OF THE TRANSPARENT SHEETING FIELD IT IS NECESSARY TO CONSIDER IN ADDITION TO THE SYLVANIA INDUSTRIAL CORPORATION, THE ACTIVITIES OF MANUFACTURERS OF OTHER COMPETITIVE SHEETINGS; THE EASTMAN COMPANY, WHICH MAKES KODAPAK, THE CELLULOID CORPORATION, WHICH PRODUCES PROTECTOID (BOTH ACETATE SHEETING), AND THE GOODYEAR TIRE AND RUBBER COMPANY, MANUFACTURERS OF PLIOFILM.

THE PRODUCERS OF ACETATE SHEETING, EASTMAN AND CELLULOID HAVE BEEN BY FAR THE MOST ACTIVE OF THESE THREE COMPANIES. HOWEVER, A LARGE PART OF THE ACETATE SHEETING PRODUCED IS CONSUMED IN INDUSTRIES WHERE VISCOSE SHEETING SUCH AS DU PONT'S AND SYLVANIA'S IS NOT PARTICULARLY ADAPTABLE, SUCH AS FOR WINDOWS IN CARTONS AND ENVELOPES, PHOTOGRAPHIC WORK, LINERS IN TOPS OF BOTTLE CLOSURES, LAMINATIONS WITH PAPERS AND TEXTILES AND IN THE ELECTRICAL FIELD INDUSTRIES. AS OUR OWN COVERAGE OF THESE INDUSTRIES IS LIMITED, WE DO NOT HAVE COMPLETE DATA ON THE VOLUME OF ACETATE BUSINESS IN TOTAL.

ACCORDING TO AVAILABLE DATA WE ACCOUNT FOR A TOTAL VOLUME OF 729,000 POUNDS OF ACETATE FOR 1935 AS COMPARED TO A KNOWN VOLUME OF 486,000 POUNDS IN 1934. OF THE 1935 TOTAL, OUR RECORDS SHOW EASTMAN SECURED 418,000 POUNDS AND THE CELLULOID CORPORATION 311,000 POUNDS, BUT WITHOUT DOUBT THE ACTUAL BUSINESS OF THESE COMPANIES IS WELL IN EXCESS OF THESE TOTALS.

THE FOREGOING FIGURES SHOW A GAIN IN ACETATE SHEETING SALES OF ABOUT 75%, BUT THIS IS NOT BELIEVED REPRESENTATIVE SINCE THESE CALCULATIONS WOULD BE DISTORTED BY A SUBSTANTIAL POUNDAGE ADDED TO OUR ESTIMATES FOR 1935 AS A RESULT OF OUR RECENTLY INITIATED COVERAGE OF PAPER JOBBERS THROUGH WHOM THE EASTMAN COMPANY DISTRIBUTES EXCLUSIVELY.

IN THE INDUSTRIES WHERE ACETATE SHEETING IS CONSUMED IN COMPETITION WITH DU PONT AND SYLVANIA MATERIAL, ITS MOST EXTENSIVE EMPLOYMENT IS AS A WRAPPER FOR PAPER PRODUCTS WHERE WE HAVE RECORDS OF APPROXIMATELY FIFTY FIRMS USING EITHER KODAPAK OR PROTECTOID, WITH A PRESENT TOTAL ANNUAL CONSUMPTION OF 140,000 POUNDS. THE NON-SHRINKING CHARACTERISTICS OF THE ACETATE FILM MAKE IT PARTICULARLY ADAPTABLE TO PAPER PRODUCTS AND TEXTILES, IN WHICH INDUSTRY OUR RECORDS SHOW A CONSUMPTION FOR 1935 OF 53,000 POUNDS. IN THE MEAT INDUSTRY WE ACCOUNT FOR A VOLUME OF 56,000 POUNDS WHERE A CERTAIN FEW ACCOUNTS HAVE PREFERRED ACETATE BECAUSE THEIR METHOD OF DISTRIBUTION HAS MADE THE NON-WRINKLING QUALITIES OF THIS MATERIAL DESIRABLE TO THEM. ALSO THERE IS A CONSIDERABLE USE OF ACETATE SHEETING ON DRIED FRUIT IN LOCAL DISTRIBUTION ON THE WEST COAST.

AS PREVIOUSLY MENTIONED, A LARGE PART OF THE DISTRIBUTION OF ACETATE SHEETING IS ACCOMPLISHED THROUGH LOCAL AGENTS, JOBBERS AND SMALL SPECIALIZED CONVERTERS, CONCERNING WHOM THERE HAS BEEN LITTLE DIRECT INFORMATION AVAILABLE, AND IN PARTICULAR AS

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RESPECTS THE ULTIMATE USERS THESE DISTRIBUTORS SUPPLY. DURING 1935, HOWEVER, WE STARTED A DEFINITE PROGRAM OF EXPANSION IN THESE FIELDS, AND ALREADY HAVE STARTED TO TRANSFER A PORTION OF THE PAPER JOBBER BUSINESS TO OUR OWN ACCOUNT.

PLIOFILM

ALTHOUGH THE GOODYEAR TIRE AND RUBBER OVER A YEAR AGO INTRODUCED PLIOFILM, A RUBBER COMPOUND, A RECENT SURVEY OF THE PROGRESS OF THIS FILM INDICATES ITS STATUS IS STILL LARGELY EXPERIMENTAL. A FEW ACCOUNTS, USING THIS MATERIAL FOR INDUSTRIAL PURPOSES, SUCH AS BAG AND CLOSURE LINERS, HAVE BEEN ESTABLISHED, BUT VIRTUALLY NO PROGRESS HAS BEEN MADE IN THE WRAPPING FIELD.

JAPANESE IMPORTS

OFFICIAL RECORDS OF THE DEPARTMENT OF COMMERCE SHOW THAT A TOTAL OF 267,000 POUNDS OF TRANSPARENT SHEETING WAS IMPORTED FROM JAPAN DURING THE PAST YEAR AS COMPARED TO A TOTAL OF 30,000 POUNDS IN 1934. THIS GAIN IN IMPORTS IS PRINCIPALLY THE RESULT OF THE ESTABLISHMENT OF AGENCIES BY THE JAPANESE PRODUCERS DURING 1935.

THE FOREIGN FILM HAS BEEN ESTABLISHED AS DEFINITELY INFERIOR IN QUALITY AND IS OFFERED TO THE TRADE SOLELY ON A PRICE BASIS. NO ACCEPTANCE HAS BEEN SECURED FOR THE JAPANESE SHEETING WITH THE LARGER MANUFACTURERS, ALTHOUGH THERE ARE A FEW CONCERNS IN THE WEST COAST AND CHICAGO AREAS WHO HAVE FOUND THIS MATERIAL SATISFACTORY FOR CHEAPER MERCHANDISE. ONCE HAVING TRIED THE IMPORTED MATERIAL, HOWEVER, A MAJORITY OF THOSE PURCHASING IT HAVE RETURNED TO DOMESTIC SUPPLIERS.

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GOV'T EXHIBIT NO. 77
CIVIL Action 3218

ANNUAL COMPETITIVE REPORT --- 1935

SUPPLEMENTAL DETAIL

DU PONT CELLOPHANE COMPANY, INC.

Sales Record Section
February 11, 1936

AT 13655

February 10, 1936.

DU PONT CELLOPHANE COMPANY, INC.

SUPPLEMENTAL DETAIL

ANNUAL COMPETITIVE REPORT

As requested, the Annual Competitive Report submitted February 10th, was written in summary form for the convenience of the Executive Committee at Wilmington.

In this report, it is our purpose to present certain supplementary and supporting detail which the nature of our previous report precluded. In this connection, it seems desirable to review briefly the salient points and basic tabulations of the previous report as the groundwork for our analysis. The following tabulation, therefore, is repeated herein:

	Plain Sheeting		Moistureproof Sheeting		Total	
1934	Pounds	%	Pounds	%	Pounds	%
Du Pont	12,731,600	77.2	26,087,200	82.8	38,818,800	80.8
Sylvania	3,766,300	22.8	5,433,700	17.2	9,200,000	19.2
	16,497,900	100.0	31,520,900	100.0	48,018,800	100.0
1935						
Du Pont	13,480,500	77.0	29,946,900	79.9	43,427,400	79.0
Sylvania	4,020,000	23.0	7,517,400	20.1	11,537,400	21.0
	17,500,500	100.0	37,464,300	100.0	54,964,800	100.0

For convenient reference also we place the following facts in tabular form:-

Sales Increases 1935 vs 1934

	Plain Transparent		Moistureproof		Total	
	Pounds	%	Pounds	%	Pounds	%
Du Pont	748,900	+5.9	3,859,700	+14.8	4,608,600	+11.9
Sylvania	253,700	+6.7	2,083,700	+38.3	2,337,400	+25.4

It is evident from the foregoing tables that Sylvania's competitive gains have come principally in its sales of moistureproof sheeting. There was, however, a slight advantage also

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secured by the competitor in plain sheeting sales, and since the use of these two materials is to a large degree mutually exclusive in a majority of our industrial outlets, we believe a satisfactory account of competitive changes in respect to each kind of stock can be secured by analysis of the situation as a whole in each of the consuming industries. Moreover, our principal competitive loss in plain sheeting sales is directly related to one of the major factors in the moistureproof division.

Considering then the changes in respective volumes in total, we can calculate there was an apparent transition during 1935 of 984,000 pounds in favor of Sylvania. We propose to show specifically where and how this competitive gain was accomplished. As a basis for our analysis we have tabulated on the following page comparative figures showing Du Pont and estimated competitive sales by industry for 1934 and 1935.

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SYLVANIA

	1935 Sales Pounds	% *	1934 Sales Pounds	% *	Change
Cigars	1,230,000	40.2	602,000	21.4	↑ 628,000
Cigarettes & Tobacco	156,000	1.5	-	.0	↑ 156,000
Baked Goods	3,484,000	29.8	2,723,000	28.4	↑ 761,000
Candy	760,000	24.4	700,000	27.0	↑ 60,000
Meat	149,000	25.4	250,000	28.2	- 101,000
Other Food	251,000	15.5	210,000	17.1	↑ 41,000
Textiles & Hosiery	278,000	33.3	241,800	26.6	↑ 36,200
Perf., Soap, Drugs	50,000	5.7	78,000	9.5	- 28,000
Paper Products	93,000	11.6	105,000	12.4	- 12,000
Miscellaneous**	351,400	17.6	219,200	13.8	↑ 132,200
Agents	1,500,000	23.2	1,251,000	23.6	↑ 249,000
Converters	3,060,000	25.0	2,695,000	23.9	↑ 365,000
Export	175,000	11.3	125,000	11.1	↑ 50,000
	11,537,400	21.0	9,200,000	19.2	↑2,337,400

DU PONT

	1935 Sales Pounds	% *	1934 Sales Pounds	% *	Change
Cigars	1,827,000	59.8	2,205,000	78.6	- 378,000
Cigarettes & Tobacco	10,003,000	98.5	9,011,000	100.0	↑ 992,000
Baked Goods	8,204,000	70.2	6,868,000	71.6	↑1,336,000
Candy	2,350,000	75.6	1,896,000	73.0	↑ 454,000
Meat	437,000	74.6	638,000	71.8	- 201,000
Other Food	1,372,000	84.5	1,018,000	82.9	↑ 354,000
Textiles & Hosiery	558,000	66.7	667,000	73.4	- 109,000
Perf., Soap, Drugs	822,000	94.3	746,000	90.5	↑ 76,000
Paper Products	706,000	88.4	740,000	87.6	- 34,000
Miscellaneous	1,643,000	82.4	1,369,000	86.2	↑ 274,000
Agents	4,975,000	76.8	4,056,000	76.4	↑ 919,000
Converters	9,163,000	75.0	8,601,000	76.1	↑ 562,000
Export	1,367,000	88.7	1,004,000	88.9	↑ 363,000
	43,427,000	79.0	38,819,000**	80.8	↑4,608,000

* Represents percentage of total business secured in each industry.

** Does not include mill roll sales to Sylvania in 1934 amounting to 303,800 pounds.

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In terms of changes in relative standing and volume, it is evident from the foregoing comparisons that Sylvania's gains have come mainly from the Cigar, Cigarette and Tobacco, Baked Goods, and Converter groups - industrial outlets whose volume is preponderantly in the Moistureproof division. Attention, therefore, logically centers first on analysis of these industries, with regard to the conditions responsible for our losses in them.

CIGARS

Before we can develop an analysis of the situation in the cigar industry, there are certain underlying considerations which must be taken into account. First, the production of cigars in the United States increased about 4% in 1935 as compared to 1934. Next, and partially resulting from the gain in production was the resumption and wider adoption of machine wrapping by certain cigar manufacturers which is estimated to have been responsible for a shift of approximately 130,000 pounds of transparent sheeting business from the makers of transparent tubes to direct purchases from Sylvania and ourselves.

Considering that in 1934 combined direct sales of Sylvania and Du Pont were estimated to have been 2,807,000 pounds, the gain in production of 4% must have added approximately 112,000 pounds to the available market in 1935, to which must be added the 130,000 pound shift in tube business previously mentioned. It will be seen, therefore, the total available direct market in the cigar industry in 1935 must have been approximately 3,050,000 pounds. Sales by Sylvania to the cigar industry are estimated to have been 1,230,000 pounds in 1935, our own direct sales were 1,827,000 pounds, which gives us a combined total of 3,057,000 pounds for both companies.

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From the foregoing it will be seen that Sylvania secured an increase of 628,000 pounds, while our sales declined 378,000 pounds. The net result of this shift in business is represented by an indicated competitive gain to Sylvania's credit of 576,000 pounds, that is, had we been able to maintain our previous relative standing, we would have sold 2,403,000 pounds instead of 1,827,000 which was the actual case.

We have previously shown our total competitive loss for 1935 to be 984,000 pounds. It is apparent, therefore, the situation in the cigar industry represented the largest single item of the total.

By far the largest proportion of our loss to the competitor in the cigar industry has been the result of his offering a product which has shown more satisfactory operation on certain types of cigar wrapping machines than has our material.

Our most serious loss was the Porto Rican American Tobacco Company, which was 100% Du Pont in 1934. Lengthy comparative tests between Sylvania's material and our own resulted in the competitor securing all of this business beginning with April. Greater machine efficiency, less waste, a tighter seal secured with competitive stock decided the issue. Comparative sales show a loss in our 1935 volume of 125,000 pounds, but because of increased business enjoyed by this account during 1935, it is estimated Sylvania actually sold approximately 160,000 pounds to them. Strenous efforts to have Porto Rican make additional comparative tests with our improved moistureproof material have been met consistently with the response the competitive film has worked with entire satisfaction.

Du Pont sales to John H. Swisher & Sons, Inc. of Jacksonville, Florida declined 83,000 pounds in 1935 but this account

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also is one whose growth during the past year is known to have been very substantial, and it is estimated Sylvania secured an additional 40,000 pounds from this source. Crystallization of our heat sealing material, which film Swisher had been using because of a preference for its sealing qualities, was the principal factor. However, at our request Swisher changed to regular moistureproof stock in October of this year but additional difficulties were encountered in the operation of this material on certain types of wrapping machines, and our proportion of the total business continued to decline. The net result was that in the fourth quarter of 1935, volume with this account totalled only slightly over 7,000 pounds, the lowest since the inception of this business in 1930.

General Cigar Company's purchases from us declined 63,000 pounds in 1935, and we have credited this decrease to the competitor. Sylvania secured this business by offering the customer material having a greater yield than our own. According to trade reports this was accomplished by supplying a sheeting thinner than standard guage, but subsequent comparative tests disproved the competitor's contention. However, certain of General's production men claimed the competitive sheeting allowed more satisfactory machine operation and the customer has continued to buy an estimated 25% of their requirements from Sylvania.

The Bernard Schwartz Cigar Company is estimated to have used approximately 74,000 pounds more competitive material at their Lima, Ohio plant in 1935 than in 1934. This loss is directly attributable to the more satisfactory operation of the competitive product on the customer's wrapping machines.

Other sizeable losses on a quality basis were H. Fendrich, Inc., 15,000 pounds; Federal Cigar Company, 15,000 pounds; and

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losses ranging from 1,000 to 10,000 pounds with approximately twenty other cigar manufacturers, aggregating a volume in excess of 100,000 pounds. Summarizing these losses, it will be seen that we account for 487,000 pounds in the foregoing or over 80% of our total net loss in the cigar industry.

During 1935, a strong selling effort was made to recapture business lost on a quality basis. In a number of cases we were able to secure consent of competitive users to try a moistureproof film developed by us especially for the cigar trade, but in many cases new difficulties were encountered and progress was definitely limited. Naturally the continued satisfaction with competitive film and our failure definitely to show the marked superiority claimed for our improved stock has had a most adverse affect on our acceptance with the competitive users, and has tended to solidify resistance to our activities.

The largest single unit of business regained where quality formerly had been an issue was that of Garcia Grande Cigars, Inc., with whom we secured an increase in volume of 28,000 pounds.

Most important of the reasons for other gains made by the competitor was his allowance of more liberal credit terms, by which he was able to secure an added 60,000 pounds.

Cigarettes and Smoking Tobacco

Prior to 1935, we had been successful in securing practically 100% of the available business of the cigarette and smoking tobacco manufacturers. However, about the middle of the year, the R. J. Reynolds Tobacco Company, manufacturers of "Camels" began to buy a portion of their requirements from the competitor. Difficulties with our sheeting, particularly brittleness, which developed about this time has been given as an excuse by the customer for splitting the business. According to our best estimates we lost approxi-

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mately 100,000 pounds of business as a result of this move. Our sales to Reynolds were 2,670,000 pounds in 1935 as compared to 2,340,000 pounds in 1934.

P. Lorillard & Company, following mechanical difficulties in the latter part of 1934 in the use of "Cellophane" on their "Briggs" smoking tobacco unit, placed practically the entire 1935 business for this unit with Sylvania--an estimated loss to us of 56,000 pounds.

BAKED GOODS

According to our estimates, Sylvania secured an increase of 761,000 pounds in the Baking Industry in 1935 as compared to an increase by Du Pont of 1,336,000 pounds. These figures consider only direct sales and do not take into account business secured through agents and converters, in which direction we secured an additional increase of 390,000 pounds against which Sylvania's indirect suppliers made little comparable gain.

However, since the figures given in our industry tabulation cover direct sales only and indicate definite competitive inroads in this direction it appears desirable to further analyze this situation.

Based on the proportion of total business secured by Sylvania in 1934 as compared to their present ratio there is an apparent transfer of business to the competitor's credit of 166,000 pounds. This condition was brought about principally by gains made with two of the largest national bakers - The National Biscuit Company, through its subsidiary National Bread Company, and the Ward Baking Company - and with the Quality Bakers Association, a purchasing syndicate with whom Sylvania has an agreement and to whom we have not seen fit to offer a similar contract without a guarantee clause as respects payment for purchases by individual members.

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Prior to 1935, the business of the National Biscuit Company has been enjoyed almost exclusively by us, but as a matter of purchasing policy this customer decided in 1935 to place all the business of the Pittsburgh plant with the competitor. Partial requirements at other points also have been secured from Sylvania. The resulting loss to Du Pont is estimated liberally at approximately 100,000 pounds.

Ward Baking Company in the past has consistently placed part of their business with Sylvania because of differences in respect to our policies on split shipments, lack of second grade material at certain times and the contention Du Pont has forced certain unprofitable conditions on the industry by our promotion of a higher priced wrapping. The actual decline in our sales to Ward was 77,000 pounds, but it is definitely admitted by this customer that the competitor is securing approximately 400,000 pounds annually from Sylvania, a competitive gain by them in the past year of approximately 160,000 pounds.

In the past we have sold and continue to sell the individual members of the Quality Bakers syndicate. However, during 1935 a strong drive was made by this organization to place all business with the competitor to secure advantage of the agreement rebate allowed for the group.

Several of the leading members succumbed to this argument, and the competitor's sales to those members are estimated to have been increased approximately 60,000 pounds.

Additional losses of importance in the baking industry were suffered with the Liberty Baking Corporation and Pie Bakeries Inc. In the case of the Liberty Baking Corporation, which is a holding company, we lost 10,000 pounds to Sylvania in 1935 as against 1934. More favorable credit terms allowed by the competitor was responsible for this loss, and although

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we later extended a line of credit, the account continued to buy from Sylvania to take full benefit of their agreement.

Our sales to Pie Bakeries, Inc. declined 52,000 pounds. All of this is credited to the competitor. Sylvania originally secured an entree with this account by supplying "thirds" at a price below list for "seconds", but during 1935 obtained an appreciable share of the roll business because of difficulties encountered with our material in its use on wrapping machines.

Most important competitive gain made by Du Pont was with the General Baking Company whose purchases from us increased from 493,000 pounds in 1934 to 839,000 pounds in 1935. During 1935 we were successful in eliminating the competitive material entirely with this account and it is estimated approximately 200,000 pounds of business came to us which otherwise might have been enjoyed by the competitor.

According to our estimates the transition of business to Sylvania in the baking industry in 1935 totalled approximately 166,000 pounds, and we have accounted for losses of 370,000 pounds and a gain of 200,000 pounds in the foregoing detail, covering the most important changes. There were, of course, numerous other shifts in business with smaller accounts, but in the aggregate these were largely of a compensating character.

CONVERTERS

According to our estimates Sylvania increased its proportion of the total converter business from 23.9% in 1934 to 28.0% in 1935. Based on the present combined volume of Sylvania and ourselves sold to converters, this change in position indicates there was a transition of approximately 139,000 pounds in favor of the competitor.

Principal cause of this competitive gain by Sylvania, was our loss of the larger proportion of the business of the Union

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Bag and Paper Company. In 1934 we sold Union a total of 536,000 pounds, and in 1935 only 252,000 pounds, a difference of 284,000 pounds which we have credited to Sylvania. Difficulties experienced in fabricating triplex coffee bags with moistureproof Cellophane, satisfactory performance of the competitor's film, and his willingness to honor all complaints without question were the principal reasons for this shift in business. Also recently, our agent the Zellerbach Paper Company, operating on the West Coast discontinued the resale of Union's bags and placed its business with the Shellmar Products Company. Following this, Union placed its bag business in the hands of Blake Moffit & Towne, competitive agent on the West Coast. This situation has led to a virtual elimination of Cellophane at Union's western plants.

Next in importance, though not strictly a competitive situation, was the virtual disintegration of the transparent bag business of the Continental Bag and Paper Company. Management of Continental's transparent bag business has been below the par of other converters specializing in this field; and the business had been unprofitable. In April 1935, Continental lost the bag business of the Minnesota Mining and Mfg. Co. to Shellmar. This business had been Continental's largest single unit. As a result, Continental sold out to executive affiliated with Oneida Paper and Bag Company of Brooklyn (a competitive converter) who has since conducted the business under the name of the Continental Bag Specialties Company, and continued to buy Du Pont material for the bulk of the new company's requirements.

During 1934 we sold Continental Bag and Paper Company 417,000 pounds, and in 1935, including both the old and new regimes, a total of 144,000 pounds or 273,000 pounds less. Aside from the portion of this decrease, previously mentioned which was secured by the Shellmar Products Company, the lack of activity by Continental during a large part of this year resulted

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in a redistribution of considerable volume of the now affiliated competitive group. It is not possible to determine accurately the competitor's net gain from this situation, but it is believed to have been not in excess of 60,000 pounds.

In the case of the American Paper Goods Company manufacturers of envelopes and bags, Sylvania secured nearly 100% of the business in 1935 - a loss to us 17,000 pounds - because of higher converting costs with Cellophane than with Sylphrap. Alexander Herz Company, converter of similar products increased its proportion of competitive purchases in 1935 because of difficulties encountered in sealing our plain transparent stock, resulting in a reduction in our volume of approximately 13,000 pounds.

Milprint Products Corp., ordinarily considered as a 100% Du Pont converter placed an estimated 15,000 pounds of business with the competitor to satisfy customer specifications.

Offsetting these estimated gains by the competitor which total 389,000 pounds, were gains made by us with other converters using both Du Pont and competitive material. We were successful in eliminating the larger part of competitive purchases in the case of the Traver Corporation with whom we gained 86,000 pounds; substantial progress was made in securing a larger share of the business of the Forbes Lithographing Company, formerly 90% competitive, with whom we increased our volume from 39,000 pounds to 109,000 pounds, an increase of 70,000 pounds; and in the case of the United States Envelope Company we were successful in increasing our business from an estimated 50% to 75% of the total for a gain of 147,000 pounds. All told, our increases with these three accounts totalled 283,000 pounds. When deducted from Syl-

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vania's competitive gains previously mentioned, the difference covers approximately 80% of the indicated transition of 139,000 pounds.

Sylvania's remaining gains can be credited principally to expansion in the volume of two converters - Whiting-Patterson and Western Transparent Bag Company - concerns whose activity in 1934 was on a materially lower level, but who secured large relative gains in 1935 on a price basis.

COMPETITIVE CHANGES IN OTHER INDUSTRIES

In the candy industry, our 1935 sales increased 454,000 pounds as compared to a gain by Sylvania of 60,000 pounds. Our growth in volume in this industry has resulted largely from aggressive promotion of Cellophane usage as an individual wrapper on hard candy, kisses and caramels, a development in which Sylvania has not shared proportionately. On a strictly competitive basis, there has been little aggregate transfer of business, and what has occured has been mainly to our benefit.

It will be observed that both Sylvania and ourselves suffered substantial declines in sales to the meat packers. This condition developed as a result of A.A.A. hog killing activities and the consequent shrinkage in the supply of pork, which was reduced 40%-45% below the 1934 level. Du Pont's comparatively better showing is attributed to a slightly improved competitive standing with the major packers together with our promotion of specialties which gave us a moderate increase in new business.

Under "Other Food Products" we show an increase of 364,000 pounds as compared to a gain of 31,000 pounds for Sylvania. Accounts in this category cover a broad range of product, and with the majority of these there has been a marked gain in Du Pont sales. Most important gain was with General Foods, Inc. in connection with

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with their active promotion of frozen foods. Purchases of Cellophane for frozen food products of this customer increased from 49,000 pounds to 132,000 pounds - a gain of 83,000 pounds. Purchases by producers of vegetable oil shortening also were responsible for a large increase - totalling 40,000 pounds. The business in foregoing classifications is and has been 100% Du Pont, and the competitor has no comparable units of business in which proportionate gains were made.

In the textile and hosiery industries, our proportion of the total volume decreased from 78.4% in 1934 to 66.7% in 1935, while Sylvania was able to make corresponding gains in position. Contrary to appearances, however, this change in position does not have as a basis any important shift in business. During 1935, our sales to the shirt branch of the textile industry, which is our largest outlet in this field, declined 200,000 pounds as a result of a general trend away from wrapping due to vicious price competitionin the industry and the introduction of the stiff fused collar shirt. The losses we sustained on shirts were partially offset by gains made in sales for other textile products, principally sheets and pillow cases where we have sold practically all the leading manufacturers. These gains, however, are only partially reflected in our direct sales since most of the adoptionsof Cellophane were printed material, which business was secured by our converters.

Sylvania too, suffered serious declines in its sales to the shirt industry, but because of a very large proportion of the competitor's volume in the textile industry is with manufacturers of narrow fabrics such as J & P Coats and W. E. Wright, whose volume showed marked stability and slight increases, Sylvania was able to nullify in part the influence of the shirt situation.

also Sylvania participated proportionately in the gains made in the sheet and pillow case field so far as direct sales are concerned, and was able to secure substantial added business from laundries in which field the competitor has had the business of the largest user for several years.

Du Pont was able to increase its position and volume in perfume, soap and drug classification both through expansion and established business and minor competitive gains. Sylvania lost one of its principal accounts to our Agent Brooks, about the middle of the year.

Despite a slight improvement in our competitive position our volume to the paper products industry suffered a loss of 34,000 pounds. This situation developed as a result of discontinuance of transparent sheeting by virtually all manufacturers of facial tissue due to a price war. Kimberly-Clark, our largest customer in this field, bought 135,000 pounds less in 1935 than in 1934. New business, developed principally on luncheon accessories, offset losses on facial tissue to the extent of 100,000 pounds, but gains on other paper products were insufficient to materially reduce the total decrease.

In the remaining industrial group covering miscellaneous unclassified accounts, we show a gain in position for Sylvania from 13.8% of the total to 17.6%. On the basis of present combined volume, this indicates a transition of approximately 75,000 pounds. Principal causes of this change were as follows:

Berst-Foster & Dixfield (manufacturers of clothespins, toothpicks, paper napkins) bought 151,000 pounds from Du Pont in 1934, and 84,000 pounds in 1935 - a decrease of 67,000 pounds. Adoption of Cellophane by this concern early in 1934 prompted a price war in the industry. As a result, less pressure was put

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on the marketing of the wrapped unit and requirements fell off considerably during 1935. While this does not represent loss, it does have a substantial effect when comparing the relative volumes.

Of actual competitive losses, the most important were the business of the Columbia Wax Products Company - 32,000 pounds, and the Gillette Razor Blade Company - 18,000 pounds, both of which were lost due to quality trouble with our material.

* * * * *

In the above detail, we have described the principal competitive changes in the various consuming industries. If we consider only the cigar, cigarette and tobacco, baked goods and converter classifications in which the major competitive losses are concentrated, it will be noted we account for 1,047,000 pounds of business which was transferred to the competitor's books in 1935, and only the fact we were able to make partially compensating gains in other fields held the net competitive loss to the 984,000 pounds shown on the first page of this report.

As indicated, the majority of this loss can be attributed directly to certain specialized qualities of the competitor's moisture roof film, a situation of particular effect in the cigar industry. The remaining major losses can be ascribed generally to matters of purchasing policy as in the case of the National Biscuit Company and the Ward Baking Company. The significant point in this connection, is that despite the normal tendency of larger organizations to split their requirements among several suppliers, the competitor's strenuous solicitation and offering of a moisture-proof sheeting manufactured under license from us, we have enjoyed for several years practically the entire business of these accounts, and even in the face of the competitive losses indicated, our percentage of the total business with these concerns is not materially reduced.

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GOV'T EXHIBIT NO. 78
Civil Action 1216

E. I. DU PONT DE NEMOURS & COMPANY

RAYON DEPARTMENT

ANNUAL COMPETITIVE REPORT

1937

"CELLOPHANE" DIVISION

Re: Cellulose Film

EXECUTIVE COMMITTEE ROOM

Submitted by:
O. F. Benz, Director of Sales

T. L. Hines, Assistant Division Manager

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Prepared by:
Trade Analysis Section

February 2, 1938

E. I. DU PONT DE NEMOURS & COMPANY

"CELLOPHANE" DIVISION

ANNUAL COMPETITIVE REPORT

COMPETITIVE SITUATION SUMMARIZED

Sales of the two domestic producers of viscose transparent sheeting, representing the combined volumes of the "Cellophane" Division and Sylvania Industrial Corporation, are estimated to have totalled 76,073,400 pounds in 1937. This compares with an estimated total of 69,453,200 pounds in 1936, a gain of 6,620,200 pounds or 9.5%.

It is estimated Sylvania sold 15,650,300 pounds during 1937, and du Pont sold 60,423,100 pounds, or in a ratio of 20.6% and 79.4%, respectively. Comparable 1936 volumes were 14,536,000 pounds for Sylvania or 20.9%, and 54,917,200 pounds or 79.1%.

From the standpoint of actual competitive conditions, however, du Pont's volume and actual improvement was slightly better than these figures indicate. During 1937, the "Cellophane" Division sold 498,000 pounds to British Cellophane Limited on an accomodation basis, and similarly in 1936 a volume of 1,083,000 pounds. These items, which are of a non-competitive character since Sylvania has no like unit of business, distort somewhat the true picture in terms of relative changes. For this reason, in the analysis which follows we have limited comparisons of competitive volume to our own figures from which the British business has been deducted.

To cover comparisons on a net basis, we tabulate the following summaries:

COMPARISON OF TOTAL VOLUMES

	Plain Sheeting		Moistureproof Sheeting		Total	
1936	Pounds	%	Pounds	%	Pounds	%
Du Pont	16,116,600	77.9	37,717,600	79.1	53,834,200	78.7
Sylvania	4,563,000	22.1	9,973,000	20.9	14,536,000	21.3
	20,679,600	100.0	47,690,800	100.0	68,370,000	100.0
1937						
Du Pont	16,787,600	79.1	43,197,000	79.8	59,984,600	79.3
Sylvania	4,701,000	20.9	10,948,300	20.2	15,650,300	20.7
	21,488,600	100.0	54,154,300	100.0	75,574,900	100.0

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It may be seen from the foregoing that du Pont's position shows improvement both in the plain and moistureproof sheeting classifications. In the aggregate, the increase from 78.7% in 1936 to 79.3% in 1937 would indicate a transition of business in our favor of approximately 450,000 pounds.

To show the factors responsible for the competitive gain by du Pont, the discussion which follows provides a condensed description of our operations and conditions in the various industries served by both companies during 1937. As a basis for analysis, we have tabulated detailed comparative statistics showing du Pont and estimated competitive sales by industry for 1936 and 1937. The use of plain and moistureproof sheeting is to a large degree mutually exclusive in a majority of the consuming industries so that for all practical purposes total industry figures will suffice for comparative study.

DU PONT SALES

Pounds

Industry	1937 Sales	%*	1936 Sales	%*	Change
Cigarettes	10,710,000	89.8	10,299,000	92.0	+ 411,000
Cigars	2,124,000	62.2	2,004,000	60.3	+ 120,000
Other Tobacco	1,658,000	93.8	1,360,000	95.4	+ 298,000
Candy	2,913,000	76.2	2,791,000	76.2	+ 122,000
Baked Goods	13,674,000	73.6	11,512,000	72.2	+2,162,000
Meat	535,000	78.1	502,000	77.0	+ 33,000
Other Food Products	2,301,000	88.6	1,959,000	87.5	+ 342,000
Textiles and Hosiery	752,000	77.7	800,000	77.7	- 48,000
Perfume, Soap, Drugs	958,000	95.7	871,000	95.8	+ 87,000
Paper Products	765,000	86.5	726,000	87.4	+ 39,000
Miscellaneous	1,135,000	76.5	926,000	76.2	+ 209,000
Agents and Jobbers	7,093,000	78.2	6,647,000	77.5	+ 446,000
Converters	13,581,000	77.3	12,250,000	77.0	+1,331,000
Export	1,724,000	88.5	1,187,000	91.5	+ 537,000
	59,924,000	79.3	53,834,000	78.7	+6,090,000
British Cellophane Limited	499,000		1,083,000		- 584,000
GRAND TOTAL	60,423,000		54,917,000		+5,506,000

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SYLVANIA SALES

Pounds

Industry	1937 Sales	%*	1936 Sales	%*		Change
Cigarettes	1,220,000	10.2	900,000	8.0	+	320,000
Cigars	1,290,000	37.8	1,318,000	39.7	-	28,000
Other Tobacco	110,000	6.2	65,000	4.6	+	45,000
Candy	910,000	23.8	870,000	23.8	+	40,000
Baked Goods	4,895,000	26.4	4,420,000	27.8	+	465,000
Meat	150,000	21.9	150,000	23.0		-
Other Foods	295,000	11.4	280,000	12.5	+	15,000
Textiles and Hosiery	219,000	22.3	230,000	22.3	-	11,000
Perfume, Soap, Drugs	43,000	4.3	38,000	4.2	+	5,000
Paper Products	120,000	13.5	105,000	12.6	+	15,000
Miscellaneous	348,000	23.5	290,000	23.8	+	58,000
Agents and Jobbers	1,975,000	21.6	1,930,000	22.5	+	45,000
Converters	3,850,000	22.1	3,650,000	23.0	+	300,000
Export	225,000	11.5	270,000	18.5	-	45,000
	15,650,000	20.7	14,526,000	21.3	+1,124,000	

*Represents percentage of total sales secured in each classification.

Considering the changes in relative position in each industry, our tabulation shows the most significant shifts in business have occurred in the Export, Cigarette, Cigar and Tobacco classifications. The export situation particularly deserves special consideration in analyzing the changes in total volumes before detailing the conditions in the domestic consuming industries. The increase in du Pont's net export shipments to the trade and agents from 1,187,000 pounds in 1936 to 1,724,000 pounds in 1937, compared to the decline in Sylvania's estimated export volumes of 270,000 pounds in 1936 to 225,000 pounds in 1937, was the result of special conditions rather than the large transition in business indicated. Statistically, the improvement in du Pont standing from 81.5% of total export sales to 88.5% would indicate a transfer of competitive volume to us of approximately 135,000 pounds. However, du Pont's net export sales in 1936 were abnormally low as a result of large credits for certain South American volume sold on a consignment basis, so that actual displacement of competitive business would be somewhat lower than the foregoing figures indicate.

INDUSTRY DISCUSSION

Cigarettes

Official figures on the output of cigarettes for the fiscal year 1937 show a gain of 6.1% over 1936. Sales of

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"Cellophane" advanced 4.0%. Competitive volume increased an estimated 35.5%, the result almost entirely of securing a greater share of the business of R. J. Reynolds Tobacco Company, particularly in the latter half of 1937 when inroads made by du Pont in other industries appreciably restricted the competitor's volume. In this connection, there has been considerable recent evidence coming from the field of efforts by the competitor to bolster his relatively weaker position in moistureproof sales by more active solicitation of large units of business in the tobacco industry.

The Reynolds' loss, which developed about the middle of 1935 as a result of production difficulties with du Pont sheeting (particularly brittleness), represents the competitor's largest single unit of consumer business. Despite strenuous efforts to displace the competitor with this account, the attitude of the customer - since his difficulties - has been that more than one source of supply is desirable and it has not been possible to re-establish our former 100% relationship. The continuing loss represented by the Reynolds' business is estimated to have totalled 1,170,000 pounds in 1937 compared to a volume under 900,000 pounds in 1936.

Other cigarette manufacturers using competitive sheeting are American Tobacco Company, for two minor brands, and Stephano Brothers, in small quantity mainly for test purposes.

Cigars

Contrasted to our loss in the cigarette industry, there has been a competitive gain by us in the cigar field. With output increasing only 2.6% in 1937 compared to 1936, du Pont sales rose 6.0%, which is indicative of the transition in our favor despite the fact several major accounts bought at a greatly curtailed rate in November and December.

During 1937, du Pont regained or increased its position with a number of competitive accounts. Except for one important loss - American Tobacco Company's business

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at Charleston, South Carolina - which was a matter of purchasing policy, the degree of our progress in the industry would have been most substantial. As it was, business regained in the cigar industry more than offset the decrease in our sales of 76,000 pounds at Charleston and reduced the portion of business enjoyed by Sylvania from 39.7% in 1936 to 37.8% in 1937.

Another factor in the cigar industry in 1937, which affected both du Pont and Sylvania to a minor degree, was an attempted revival of foil wrapping by the Reynolds Metal Company, which displaced transparent sheeting in total volume an estimated 60,000 pounds.

Tobacco

Although the production of manufactured tobacco declined close to 3% in 1937 compared to 1936, and this condition was reflected in part in our sales to individual accounts, total volume of "Cellophane" sold in this industry increased 21.3%. This gain was mainly the result of two important developments which had their inception late in 1936.

Most significant was the adoption of "Cellophane" for chewing tobacco by R. J. Reynolds in the Fall of 1936 which gave du Pont a plus volume of 270,000 pounds for the full year 1937. Next in importance was the increased volume secured from Pinkerton Tobacco Company. Adopting "Cellophane" for one unit in June 1936, this concern has consecutively added one brand after another until now 100% of its output is wrapped. Total sales to Pinkerton for 1937 were 161,000 pounds compared to 1%,000 pounds in 1936.

Sylvania, up to the third quarter of 1937, was securing the business of only one major manufacturer of smoking and chewing tobacco - Lorillard, whose business on the "Briggs" unit was lost by us in 1935 as a result of difficulties in the mechanical application of our material. During the third quarter of 1937, however, American Tobacco Company, on a policy basis and in order to augment the reduced volume of business the competitor was securing for

cigar wrapping at Charleston as a result of business decline, shifted the larger portion of purchases for smoking tobacco to Sylvania. The nearest possible estimate of this loss is 45,000 pounds.

Candy

According to official figures, dollar sales of confectionery products rose 6% in 1937, which would mean a gain in physical volume probably not exceeding 4%. Direct sales of "Cellophane" to this industry increased 4.4%, but if we exclude sales to manufacturers of chewing gum in which business Sylvania does not participate in any large way directly*, the gain in du Pont volume would be 7.4%. No major transitions in business are recorded, but Kraft Phenix Cheese Company, whose past purchases of Sylvania's material for caramels have been made through printers, specified du Pont material on a large portion of 1937 volume. As a result, we secured indirectly a competitive gain of approximately 50,000 pounds with this one account which is not reflected in the industry tabulations.

Baked Goods

In the baked goods industry, business regained from Sylvania during 1937 considerably exceeded identifiable losses. Calculating the apparent transition in volume, it is estimated du Pont displaced at least 175,000 pounds of business formerly enjoyed by the competitor. Outstanding item in this performance was the securing of Ward Baking Company's business at Pittsburgh, none of which was enjoyed by du Pont in 1936, but whose total purchases from us for this point exceeded 118,000 pounds in 1937. No single competitive loss approached the volume of this gain.

Quality Bakers, Inc., a purchasing syndicate representing approximately 90 independent bakers, with whom Sylvania had a quantity discount contract until May 1936, were

*NOTE: Sylvania does, however, secure the business of the American Chicle Company through a converter, which volume is reflected on the figures for Converter Sales.

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refused a like agreement by the competitor at the expiration date. Following this and up to May 1937 when Sylvania reversed its previous stand and resumed contract relations, we were able to sell many of the individual members and secure a competitive gain of 260,000 pounds for the year 1936 with an added gain of 32,000 pounds for the group in 1937. Since May 1937, however, a majority of the smaller concerns have returned to purchasing through the syndicate to secure the benefits of Sylvania's contract. The competitor's contract is, of course, contrary to our policy of extending quantity discounts only to buyers owned by one financial interest or to those groups whose purchasing organization assumes full credit responsibility.

Aside from direct gains reflected in the industry tabulation, we were successful in securing a volume of business through our converters in the Atlanta area in excess of 125,000 pounds. This business, while essentially the result of development, is considered to represent a sizable diversion of volume to us which the competitor otherwise might have secured because of his past relationship with the two concerns accounting for this volume.

Meat

The improvement in du Pont's position in direct sales to the meat packing industry is attributable entirely to a gain in the moisture proof classification of approximately 45,000 pounds. This increase is the result of new applications in the meat industry, particularly the use of transparent sheeting for protection of meats in storage. No appreciable change is evident in the competitive volumes of plain material, offsetting gains and losses minimizing the net transition in business.

By far the most important competitive situation in the meat industry is centered in the Swift account where Sylvania, in the second quarter of 1936, secured and still holds the larger share of Swift's printed sheeting business through the competitive converter, Daniels Manufacturing

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Company, who secured this business on a price basis.

Food Products

Development of new business and additional volume with established accounts out-running the competitor's rate of gain were the principal factors in the apparent improvement in du Pont's competitive position. Competitive gains and losses were of minor consequence. One exception to this was with Hills Brothers, the dried fruit packer, where Sylvania displaced our established volume to the extent of 14,000 pounds as a result of our inability to meet the customer's requirements on colored stock early in 1937. This business since has been regained.

Textiles and Hosiery

Conditions in the textile industry during 1937 were distinctly unfavorable to our operations. Demoralized cotton prices, large inventories and labor troubles affected to some degree all division of this industry. The trend toward discontinuance of wrapping in the shirt industry, evident for several years past, was even more marked in 1937, fostered by the problems of application for stand-up collars, lack of retailers interest and association of transparent wrapping with low-end merchandise. Progress, however, was made in the wrapping of underwear and lingerie.

In the domestics division, there was a tendency to favor boxes as against visible wrapping which retarded the rate of our growth in this field.

From a competitive standpoint, the most significant factor was du Pont's competitive gain of 11,000 pounds registered with the J. & P. Coats Company, manufacturers of narrow fabrics.

Paper Products

Although du Pont sales show a slight increase, the continued fading of volume for use on facial tissue because of internal price conditions in this field offset gains made in the luncheon accessory and other portions of the paper industry. This situation, together with the competitor's taking a share

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of the business of the C. A. Reed Company (paper specialties) amounting to an estimated 29,000 pounds, was the principal reason for Sylvania's slight gain in relative standing. Du Pont's competitive loss was partially offset by the elimination of Sylvania's volume with the Dixie Vortex Company where we received an additional 13,000 pounds.

Other Industries

In the Perfumes and Soap classification, the adjustment of an internal inventory situation with our largest soap account, coupled with the addition of a substantial block of new business with another leading soap producer, were mainly responsible for the increase in du Pont sales. Offsetting factors were the transfer of 9,000 pounds of Squibb's business to Sylvania and an adverse inventory condition with Plough, Inc., (drugs and toilet articles) which reduced our sales to this account 15,000 pounds in 1937. Numerous gains in the miscellaneous category, with no indicated losses to the competitor of any magnitude, resulted in a slight advantage to us in competitive standing.

Agents and Jobbers

While no significant shift in business is evident in this classification, two factors of relatively minor importance affected the slight improvement in du Pont's position. First, the competitor reduced the status of its agent in the Texas area, the Pollock Paper & Box Company, to essentially a jobber status through establishment of a warehouse in Dallas and institution of more comprehensive direct coverage. The convenience of this warehouse enabled the competitor to secure directly the business of several branch plants of national organizations, which losses are reflected in the figures covering the specific consuming industries previously detailed. On the other hand, du Pont's more intensive promotion of "Cellophane" with small jobbers generally throughout the country gave us a gain of substantially larger proportions. Sales of "Cellophane" to jobbers in 1937 totalled 516,000 pounds compared to 299,000 pounds in 1936.

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Converters

On a competitive basis, converter business may be divided into three classifications, i. e., those which are nominally 100% du Pont, those who buy from both du Pont and Sylvania and those whose purchases are exclusively competitive. For our purposes, we need consider only those in the middle group. Analysis of sales to the major converters who divide their purchases indicates a net gain in our favor of approximately 208,000 pounds, which may be taken to represent more closely the transfer of converter volume in our favor than any calculations of apparent transition.

DU PONT* AND SYLVANIA SALES - 1936-1937
(Pounds)

Plain Transparent	Sylvania	%	Du Pont	%	Total PT
1936					
1st Quarter	1,013,000	22.0	3,680,000	78.0	4,693,000
2nd "	990,000	24.0	3,142,800	76.0	4,132,800
3rd "	1,210,000	24.0	3,923,800	76.0	5,133,800
4th "	1,350,000	20.0	5,370,000	80.0	6,720,000
*Total	4,563,000	22.1	16,116,600	77.9	20,679,600
1937					
1st Quarter	1,175,000	22.0	4,171,900	78.0	5,346,900
2nd "	1,137,000	22.5	3,920,700	77.5	5,057,700
3rd "	1,160,000	22.8	3,925,600	77.2	5,085,600
4th "	1,230,000	20.7	4,703,400	79.3	5,939,400
Total	4,702,000	21.9	16,727,600	78.1	21,429,600
% Increase over 1936	3.0%		3.8%		3.6%

Moistureproof					Total MT
1936					
1st Quarter	1,988,800	20.3	7,800,900	79.7	9,789,700
2nd "	2,695,000	22.4	9,309,200	77.6	11,994,200
3rd "	2,508,100	20.0	10,094,700	80.0	12,602,800
4th "	2,791,100	21.0	10,512,800	79.0	13,303,900
Total	9,977,000	20.9	37,717,600	79.1	47,690,600
1937					
1st Quarter	2,247,200	18.0	10,244,900	82.0	12,492,100
2nd "	3,154,400	21.0	11,832,100	79.0	14,986,500
3rd "	2,859,000	21.4	10,485,000	78.6	13,344,000
4th "	2,387,700	20.2	10,635,000	79.8	13,322,700
Total	10,948,300	20.2	43,197,000	79.8	54,145,300
% Increase over 1936	9.8%		14.5%		13.5%

Total					Total
1936					
1st Quarter	3,001,800	20.7	11,480,900	79.3	14,482,700
2nd "	3,685,000	22.8	12,452,000	77.2	16,137,000
3rd "	3,718,100	21.0	14,018,500	79.0	17,736,600
4th "	4,141,100	20.7	15,882,800	79.3	20,023,900
Total	14,536,000	21.3	53,834,200	78.7	68,370,200
1937					
1st Quarter	3,422,200	19.2	14,416,800	80.8	17,839,000
2nd "	4,291,400	21.4	15,752,800	78.6	20,044,200
3rd "	4,019,000	21.8	14,410,600	78.2	18,429,600
4th "	3,917,700	20.3	15,344,400	79.7	19,262,100
Total	15,650,300	20.7	59,924,600	79.3	75,574,900
% Increase over 1936	7.7%		11.3%		10.5%

*Sales to British Cellophane Limited excluded in both years.

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ACTIVITY OF OTHER TRANSPARENT SHEETING PRODUCERS

Acetate Sheeting

Regenerated cellulose sheeting manufactured by du Pont and Sylvania accounts for approximately 97% of the total known use of all forms of transparent sheeting produced in or imported into the United States. Acetate sheeting, manufactured by the Eastman Company and the Celluloid Corporation represent the major part of the remaining 3%.

Because of the relatively small volume and the fact a considerable portion of acetate sheeting is sold for uses to which "Cellophane" is not particularly adaptable, and in industries in which our coverage is limited, it is extremely difficult to estimate total volumes of the respective producers. Available data for 1937, however, enables us to account a volume of 1,202,000 pounds by Eastman and 1,352,000 pounds by Celluloid, or a total sale of 2,554,000 pounds, which we believe may be in the neighborhood of 60% or 70% of total actual volume. Comparable to the accounted for volume in 1937 is an estimated total of approximately 1,800,000 pounds for 1936. Sales by du Pont of cellulose acetate film during 1937 were 65,800 pounds, an increase of 30% over 1936.

Goodyear's Rubber Film

Although now on the market approximately three years, the transparent film developed by Goodyear Tire & Rubber Company has made no appreciable progress in the packaging field. As reported last year, present consumption of this product is confined almost exclusively to industrial or specialty uses including inexpensive, light-weight raincoats, garment covers, insulation for electric wire, transparent umbrellas, bag and container liners. Based on available information, it is estimated the sale of this product approximated 700,000 pounds in 1937.

Japanese Imports

Official records of the Department of Commerce show that 141,000 pounds of Japanese (viscose) film was imported during the first eleven months of 1937 as compared to 190,000 pounds in the corresponding period of 1936 and 195,000 pounds for the full twelve month period.

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GOV'T EXHIBIT NO. 79
Civil Action 1216

E. I. DU PONT DE NEMOURS & COMPANY

RAYON DEPARTMENT

ANNUAL COMPETITIVE REPORT

1938

"CELLOPHANE" DIVISION

Re: Cellulose Film

Submitted by:

O. F. Benz
Director of Sales

Approved by:

I. L. Hines
Assistant Manager, "Cellophane" Division

Prepared by:
Trade Analysis Section

February 9, 1939

AT-13626

E. I. DU PONT DE NEMOURS & COMPANY

"CELLOPHANE" DIVISION

ANNUAL COMPETITIVE REPORT

RELATIVE POSITIONS OF PRODUCERS

Combined volumes of the "Cellophane" Division and Sylvania Industrial Corporation for 1938, the only domestic producers of viscose transparent sheeting, are estimated to have reached the new high level of 78,630,100 pounds. This compares with an estimated total of 76,170,400 pounds in 1937, a gain of 2,459,700 pounds or 3.2%.

Sylvania's share of the total is placed at 17,132,000 pounds for 1938 or 21.8% of the combined volumes. Sales of the "Cellophane" Division were 61,498,100 pounds or 78.2% of the total. Comparable 1937 volumes were 15,747,300 pounds or 20.7% for Sylvania; 60,423,100 pounds or 79.3% for du Pont.

Appraisal of actual competitive conditions, however, requires some refinement in calculation since the "Cellophane" Division supplied approximately 498,500 pounds to British Cellophane Limited on an accomodation basis in 1937, compared to 99,700 pounds in 1938. This business was in no sense of a competitive character, so in subsequent analysis it is desirable to limit comparisons to figures excluding British business. Such deductions have been made in the following summaries:

COMPARISON OF TOTAL VOLUMES

	PLAIN SHEETING		MOISTUREPROOF SHEETING		TOTAL	
1937	Pounds	%	Pounds	%	Pounds	%
Du Pont	16,727,300	77.8	43,197,000	79.7	59,924,600	79.2
Sylvania	4,743,000	22.1	11,004,300	20.3	15,747,300	20.8
Total	21,470,000	100.0	54,201,300	100.0	75,671,900	100.0
1938						
Du Pont	16,144,000	79.9	45,254,300	77.6	61,398,300	78.2
Sylvania	4,069,000	20.1	13,063,000	22.4	17,132,000	21.8
Total	20,213,000	100.0	58,297,300	100.0	78,530,300	100.0

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*Figures covering Sylvania's moistureproof sales include 10,948,300 pounds in 1937, 13,019,400 pounds in 1938 subject to royalty under a license agreement with du Pont, the balance being estimates for minor volumes sold by the competitor in various countries not covered by the license agreement.

From the foregoing tabulation it will be seen Sylvania's percentage of the combined total volumes increased from 20.8% in 1937 to 21.8% in 1938 and the competitor improved his position in the moistureproof classification only. Considering the aggregate change from 20.8% in 1937 to 21.8% in 1938 in relation to the volumes in both years, there is an indicated transition favoring the competitor of approximately 798,000 pounds.

Before detailing the specific instances responsible for this diversion of business, it is desirable to point out the general factors which were most influential.

First, Sylvania's gains were secured principally from the larger type user, whose previous business has been enjoyed almost exclusively by du Pont. The basis on which these inroads were made was promotion of the idea of two sources of supply, backed by guarantees of indemnifying customers for any loss of rebates under quantity purchase agreements in existence with our company.

It is a policy of many of our larger customers not to confine requirements to any one supplier unless there is a difference in price which, in effect, obtained in our favor under quantity purchase agreements. Sylvania's guarantee of indemnification nullified this advantage and eliminated, to a considerable extent, grounds on which the competitor's solicitation had been rejected previously.

On the other hand, the competitor has not been particularly vulnerable to retaliation on the basis of two sources of supply strategy since there are few large units of business held by him exclusively. Those accounts where the competitor does secure the larger share or entire volume are held through unusual considerations in the form of special deals contrary to our policies, or on a basis it is felt would be demoralizing to our own structure were we to do likewise.

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Principal competitive business in this classification is the Freihofer Baking Company, American Chicle Company, Quality Bakers (a purchasing syndicate), and printed transparent sheeting bought by Swift & Company through the competitive converter, Daniels Manufacturing Company.

Despite the competitor's tactics, we have been able to keep the greater share of the business of most major users of transparent sheeting through a sales program directed toward impressing the trade with the superior quality of our product, and the dollar value of creative merchandising and technical service provided by our organization.

Next Sylvania has continued to supply "seconds" in volume apparently far beyond normal run. This was of particular importance during 1938, since the quantity of second grade sheeting available from our own production was materially reduced through refinements in manufacture. Sales of second grade sheeting by du Pont decreased 964,000 pounds in 1938, of which it is estimated approximately 30% was absorbed by competitive production. The balance of this decrease may be ascribed to a change-over to first grade material and adverse effects of the business recession.

To cover specifically the situations wherein the competitor was able to displace du Pont business and improve his relative position, the discussion which follows provides a condensed description of conditions in the more important consuming industries served by both companies in 1938. As a basis for analysis, we detail below comparative figures showing du Pont and estimated competitive sales by industry for 1937 and 1938:

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DU PONT SALES

Pounds

Industry	1938 Sales	%	1937 Sales	%		Change
Cigarettes	10,966,000	89.2	10,710,000	89.8	+	256,000
Cigars	1,893,000	58.0	2,124,000	62.2	-	231,000
Other Tobacco	1,691,000	89.9	1,658,000	93.8	+	33,000
Candy	2,688,000	75.3	2,913,000	78.2	-	285,000
Baked Goods	13,298,000	70.9	13,674,000	73.6	-	376,000
Meat	385,000	64.7	535,000	78.1	-	150,000
Other Food Products	2,398,000	87.3	2,301,000	88.6	+	97,000
Textiles and Hosiery	789,000	79.9	752,000	77.4	+	37,000
Perfume, Soap, Drugs	735,000	94.8	958,000	95.7	-	223,000
Paper Products	705,000	80.6	765,000	84.7	-	60,000
Miscellaneous	1,016,000	73.8	1,136,000	76.5	-	120,000
Agents and Jobbers	7,015,000	78.2	7,093,000	78.2	-	78,000
Converters	15,579,000	78.1	13,581,000	77.9	+	1,998,000
Export	2,300,000	88.9	1,724,000	84.3	+	576,000
	61,398,000	78.2	59,924,000	79.2	+	1,474,000
British Cellophane Limited	100,000		499,000		-	399,000
GRAND TOTAL	61,498,000		60,423,000		+	1,075,000

*Represents percentage of total sales secured in each classification.

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SYLVANIA SALES.

Pounds

Industry	1938 Sales	%*	1937 Sales	%*		Change
Cigarettes	1,330,000	10.8	1,220,000	10.2	+	110,000
Cigars	1,370,000	42.0	1,290,000	37.8	+	80,000
Other Tobacco	190,000	10.1	110,000	6.2	+	80,000
Candy	860,000	24.7	910,000	23.8	-	50,000
Baked Goods	5,455,000	29.1	4,895,000	26.4	+	560,000
Meat	210,000	35.3	150,000	21.9	+	60,000
Other Foods	350,000	12.7	295,000	11.4	+	55,000
Textiles and Hosiery	199,000	20.1	219,000	22.6	-	20,000
Perfume, Soap, Drugs	40,000	5.2	43,000	4.3	-	3,000
Paper Products	170,000	19.4	120,000	15.3	+	50,000
Miscellaneous	360,000	28.2	348,000	23.5	+	12,000
Agents and Jobbers	1,960,000	21.8	1,975,000	21.8	-	15,000
Converters	4,350,000	21.9	3,850,000	22.1	+	500,000
Export	288,000	11.1	322,000	15.7	-	34,000
	17,132,000	21.8	15,747,000	20.8	+	1,385,000

*Represents percentage of total sales secured in each classification.

CIGARETTES

Cigarette production advanced .6% in 1938. Sales of "Cellophane" increased 2.4% and the competitor secured an increase of 9.8% on the small proportion of the total business he enjoys. Sylvania's gain was principally the result of securing an additional volume, tentatively placed at 100,000 pounds, from the R. J. Reynolds' account. Du Pont sales to Reynolds for cigarettes decreased 196,000 pounds, the combined result of competitive loss and lowered business volume. The only new loss in this industry was a 10,000 pound order sold to Brown & Williamson on a test basis.

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Sylvania continues to supply requirements on two minor brands (Pall Mall and Herbert Tareyton) for American Tobacco Company, and a volume of about 25,000 pounds annually to Stephano Brothers on a two-source of supply basis.

Contributing to increased sales by du Pont was the growing popularity of brands produced by several manufacturers using du Pont material only and adoption of "Cellophane" by Brown & Williamson for "Wings" late in the year, the last important unit not wrapped.

CIGARS

Available business in the cigar industry was 3.4% less in 1938 than in 1937, according to final releases of the Bureau of Internal Revenue. Comparatively, direct sales of "Cellophane" declined 10.9%, the result of loss to Sylvania and to the Reynolds Metal Company who, during 1938, aggressively promoted foil wrapping of cigars.

The foil situation in 1938 had little effect on Sylvania, whose losses to foil were confined principally to 1937, but with two of our important accounts, Webster-Eisenlohr and Garcia Grande, we suffered a diversion in 1938 of approximately 45,000 pounds.

As between the two producers of transparent sheeting, however, closest estimate of the situation is given in our figures which show a decline from 2,124,000 pounds in 1937 to a 1938 level of 1,893,000 pounds compared to respective estimates of 1,290,000 pounds and 1,370,000 pounds for Sylvania in 1937 and 1938. Comparison of these figures would indicate a net transition of business favoring Sylvania of 136,000 pounds. Taking the foil situation into account, the actual loss to Sylvania is approximately 91,000 pounds.

General Cigar Company, one of our largest customers, is estimated to have placed approximately 40,000 pounds of business with Sylvania during 1938, principally in the first half of the year, on the basis of competitive claims of higher yield. Since then, we have

been able to over-come the competitor's claims through tests and have displaced his film with our own.

A second loss of importance was volume taken by Sylvania from us with American Tobacco Company, centered in the customer's Charleston, South Carolina, plant. This loss, which was in part a carry-over from 1937 and, on the basis of two sources of supply, is estimated to have affected our volume to the extent of 23,000 pounds. A further loss of nearly a similar size was suffered with Bernard Schwartz Cigar Corporation because of continued difficulties with our stock. Other losses were of smaller size and largely offset by business regained.

TOBACCO

During the third quarter of 1937, American Tobacco Company on the basis of allocating volume to two sources, diverted their purchases for smoking tobacco to Sylvania. It was stated this was done to augment reduced volume of business the competitor was securing as the result of lessened requirements for cigars. This loss, which represented 45,000 to 50,000 pounds in the latter part of 1937, carried through 1938 for additional reduction in du Pont sales of approximately 80,000 pounds - the customer's annual requirements being calculated at 130,000 pounds.

Sylvania's only other source of business in this field is with P. Lorillard, estimated at 60,000 pounds annually.

CANDY

Despite the slight apparent transition to Sylvania in 1938, there was actually no significant transfer of volume. The decrease in our sales to this industry is primarily the result of Beech-Nut Packing Company shifting from plain "Cellophane" to printed sheeting for the larger portion of their chewing gum requirements. The decrease in our direct sales to Beech-Nut was 184,000 pounds, which was

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fully compensated by Beech-Nut's use of du Pont material purchased through Shellmar Products Corporation, converter of du Pont sheeting.

BAKED GOODS

Principal units of business contributing to the indicated transition of 798,000 pounds in our total sales are contained in the baked goods classification. According to our estimates, we sustained a net competitive loss in excess of 500,000 pounds in this industry.

The most serious loss was experienced with General Baking Company, formerly an exclusively du Pont account, where both the two sources of supply strategy and "seconds" were brought to bear at the time renewal of annual agreements was under consideration. As a result, a decision was reached by the customer to place approximately one-third of his purchases with the competitor. The actual loss to us, however, is believed to exceed this proportion somewhat, and we place this figure close to 400,000 pounds. Likewise, on a policy basis, business of the Ward Baking Company's Pittsburgh plant was lost early in the year, estimated to have represented 100,000 pounds in 1938.

Schulze Baking Company, another major customer, diverted an estimated 100,000 pounds to Sylvania under pressure of the customer's associated West Coast organization - Western Bakeries - a totally competitive user, to bolster volume under their competitive agreement.

Purity Bakeries, also to increase volume of purchases under their competitive agreement, is estimated to have given Sylvania an added 80,000 to 100,000 pounds in the last quarter of 1938.

Relatively much smaller, there were additional competitive losses with members of the Quality Bakers syndicate, Wagner Baking Corporation and National Tea Company, aggregating an estimated 136,000 pounds. On the other hand, business regained with such concerns as Liberty Baking Company of Pittsburgh and Berwick Cake Company served to nullify competitive gains with secondary organizations, so the bal-

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ance in favor of the competitor can be ascribed essentially to the major organizations mentioned.

The outstanding unit of business regained by us was the Great A. & P. Tea Company, from whom we secured our first direct business in several years amounting to 68,000 pounds in December. Recapture of this business, however, came too late in the year to affect appreciably the 1938 situation.

The most important offset to competitive losses was the spectacular progress made by du Pont in the cracker and biscuit division of the baked goods industry. Gains secured with the leading producers in this field totaled 343,000 pounds - an increase of 53%. Sylvania's participation in this division of the industry was negligible.

MEAT

Two factors operated to reduce direct volume in this industry. First, there was a pronounced trend to printed sheeting. This particularly affected our volume with Armour, Cudahy and Morrell. Next, shortage of second grade sheeting worked against us with Wilson, Swift and Armour, who drew on the competitor for increased volumes. The trend to printed sheeting somewhat obscures analysis, but survey of individual users indicates the competitor was able to transfer to his account 40,000 to 60,000 pounds as a result of the "seconds" condition.

FOOD PRODUCTS

This classification as used here represents a wide range of products, including frozen foods, cereals, milk bottle hoods, dried fruit, shortening, cheese, tea and coffee and macaroni. Of these, only in the macaroni division did we suffer any substantial loss. The slight improvement in the competitor's standing in the food industries can be attributed entirely to displacement of du Pont volume for

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macaroni products. Sylvania's gain was accomplished principally through the offer of a special deal on 450 gauge second grade sheeting. Schoneberger & Sons, Chicago, bought 20,000 pounds under this arrangement, other concerns in smaller quantities. Traficanti Brothers, following difficulties with one of our converters, diverted to Sylvania approximately 15,000 pounds of business formerly placed direct with us. Pfaltzmar Egg Noodle Company switched to the competitor because of a weak credit position - a loss of 12,000 pounds. In the aggregate there was a transfer to Sylvania of 60,000 pounds with macaroni accounts.

TEXTILES and HOSIERY

No competitive losses of importance were sustained in this classification. On the other hand, Sylvania was displaced in several of the Southern hosiery mills through our ability to offer a non-sticking stock. Du Pont's net competitive gain is estimated at 20,000 pounds.

PAPER PRODUCTS

The principal item in the decline in our sales to this industry and in Sylvania's gain was the competitor's acquisition of a considerable portion of the business of Beach & Arthur as a result of our shortage of second grade material, financial difficulties and personnel changes in the customer's organization. Du Pont sales to Beach & Arthur decreased nearly 39,000 pounds in 1938. Losses of smaller proportions were experienced with Dixie-Vortex and C. A. Reed, the former because of promises of advertising cooperation and the latter because of a special deal on #450 weight second grade sheeting. A partial offset to these competitive losses was our regaining the business of Puritan Stationery Company in the quantity of 17,000 pounds.

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OTHER INDUSTRIES

In the perfume and soap classification the biennial adjustment of an internal inventory situation with our largest soap account, Procter & Gamble, together with a loss of 44,000 pounds with Colgate-Palmolive-Peet, as a result of not duplicating in 1938 a special combination deal of Palmolive soap and wash cloths, reduced our total volume. Sylvania's participation in the perfume and soap industry is small and not of consequence with relation to the indicated change in relative standing.

As with perfumes and soap, the principal factors in our reduced volume in miscellaneous sales had to do with internal conditions affecting large customers. Fry Products who bought 25,000 pounds in 1937 fell into financial difficulties and purchased practically no film in 1938. Berst-Forster-Dixfield Company, who bought 112,000 pounds in 1937, took only 95,000 pounds in 1938, reducing our volume a further 17,000 pounds. This loss was the result mainly of a large reduction in sales of clothespins. Lowered business volume likewise affected numerous other important accounts.

The outstanding competitive loss among customers in the miscellaneous group was sustained with the O'Cedar Corporation, who purchased approximately 12,000 pounds of competitive film as the result of Sylvania's special deal on seconds.

AGENTS and JOBBERS

No essential change occurred in this classification except our agent in the East, H. D. Catty Corporation, suffered slight losses due to the withdrawal of a member of this firm who took over distribution of the competitive product. Progress by our other agents fully offset this loss.

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CONVERTERS

Sylvania's position in converter business was slightly re-

duced during 1938 as a result of du Pont securing a larger share of the business of United States Envelope Company and Oneida Paper Products, Inc., organizations buying from both producers.

ACTIVITY OF OTHER TRANSPARENT SHEETING PRODUCERS

ACETATE SHEETING

Volume of acetate sheeting sold by the two principal producers in 1938 is estimated to have been approximately 2,900,000 pounds. Comparative 1937 volume was estimated at 2,554,000 pounds. These estimates are not considered to represent actual total volumes since there is a considerable portion of acetate sheeting sold in channels and for uses to which "Cellophane" is not particularly adaptable and where we are unable to secure adequate estimates. Available data indicate this business is about equally divided between Celluloid Corporation and Eastman Company. Du Pont's sale of acetate cellulose film during 1938 was 104,800 pounds compared to 65,800 pounds in 1937.

GOODYEAR'S RUBBER FILM

Now in the market approximately four years, the transparent film developed by Goodyear Tire & Rubber Company has made little progress in the packaging field. Consumption which rose from an estimated 700,000 pounds in 1937 to possibly 1,000,000 pounds in 1938 is still confined almost entirely to industrial uses such as light-weight raincoats, umbrellas, garment covers, insulation for electrical wire, transparent umbrellas, bag and container liners. As with acetate film, this form of transparent sheeting is under constant study and evaluation by the du Pont organization, particularly with reference to any possibilities it may represent for displacement of viscose sheeting.

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JAPANESE IMPORTS

Department of Commerce records show that 45,000 pounds of Japanese (viscose) film was imported into the United States in 1938. This compares with 149,000 pounds in 1937. Reduced imports are the result primarily of curtailed production brought about by the Far Eastern situation.

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GOV'T EXHIBIT NO. 80
Civil Action 1216

E. I. DU PONT DE NEMOURS & COMPANY

RAYON DEPARTMENT

ANNUAL COMPETITIVE REPORT

1939

"CELLOPHANE" DIVISION

RE: CELLULOSE FILM

Submitted by:

O. F. Benz
Director of Sales

AT-13629

Approved by:

T. L. Hines
Assistant Manager,
"Cellophane" Division

Prepared by:
Trade Analysis Section

February 9, 1940

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E. I. DU PONT DE NEMOURS & COMPANY

RAYON DEPARTMENT

ANNUAL COMPETITIVE REPORT

1939

"CELLOPHANE" DIVISION

RE: CELLULOSE FILM

RELATIVE POSITIONS OF PRODUCERS

Sales of viscose transparent sheeting by the "Cellophane" Division and the Sylvania Industrial Corporation, the only domestic producers of this type film, representing close to 95% of all forms of transparent sheeting sold, are estimated to have reached the new high level of 93,607,800 pounds in 1939. Compared with the 1938 estimated total of 78,930,000 pounds, this was an increase of 14,677,800 pounds or 18.6%.

Du Pont's share of this total was 73,746,000 pounds in 1939 or 78.8% of the combined volumes. Sales by Sylvania are estimated to have been 19,861,800 pounds or 21.2% of the total. Comparative 1938 figures are 61,498,000 pounds or 77.9% for du Pont, 17,432,000 pounds or 22.1% for Sylvania.

Some minor refinement in these figures, however, is necessary to reflect the actual changes in the competitive situation. In 1938, the "Cellophane" Division sold approximately 99,700 pounds to British Cellophane Limited on an accommodation basis, only 2,900 pounds in 1939. Likewise Sylvania, having no operating affiliate in Canada, shipped to its associated sales organization there an estimated 400,000 pounds in 1939; 300,000 pounds in 1938 - figures supplied by Canadian Industries. Neither unit of business can be considered of a competitive character. Hence, deductions covering the foregoing items have been made in the following figures summarizing the relative positions of du Pont and Sylvania in 1938-1939.

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COMPARISON OF TOTAL VOLUMES

	PLAIN SHEETING		MOISTUREPROOF SHEETING		TOTAL	
1938	Pounds	%	Pounds	%	Pounds	%
Du Pont	16,144,000	79.9	45,254,300	77.6	61,398,300	78.2
Sylvania	4,069,000	20.1	13,063,000	22.4	17,132,000	21.8
TOTAL	20,213,000	100.0	58,297,300	100.0	78,530,300	100.0
1939						
Du Pont	18,403,900	79.2	55,339,100	79.1	73,743,000	79.1
Sylvania	4,821,000	20.8	14,640,800	20.9	19,461,800	20.9
TOTAL	23,224,900	100.0	69,979,900	100.0	93,204,800	100.0

Sylvania's figures for moistureproof sales include 13,019,400 pounds in 1938, 14,615,800 pounds in 1939, subject to royalty under a license agreement with du Pont. The balance represents estimates sold by the competitor in various countries not covered by the license agreement.

Considering du Pont's percentage of the total business increased from 78.2% in 1938 to 79.1% in 1939, it may be calculated our improved proportion of total business has meant a net gain from the competitor of approximately 857,000 pounds in 1939.

The importance of this gain can be visualized best by a brief retrospect into previous years, and more particularly by considering the 1938 situation:

Sylvania has made consistent inroads into business developed by us over a period of time - especially during the past five years. During this period there has been a tremendous expansion of mechanized wrapping, of which we have been the principal beneficiary. This development, however, contributed heavily to our vulnerability in two directions.

First, mechanized wrapping has required numerous modifications in the manufacture of transparent film. Where originally there was a problem of producing sheeting of maximum transparency and performance at the ultimate point of sale, mechanization of wrapping has added to problems of providing a material adapted to machine handling and maintaining a satisfactory return on rapidly growing volume.

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Efforts to maintain a proper balance between these various factors led to certain situations where the competitor's product provided superior performance in specific characteristics. Deficiencies in quality thus opened the way for an alternative source of supply.

Second, creation of large units of business with individual accounts combined with the quality problem to force important customers to divert a proportion of their requirements to more than one supplier as a matter of purchasing policy.

In 1938 Sylvania made a series of raids against our larger units of business, offering inducements in the form of guarantees against loss on quantity rebates which these customers expect to earn in purchases from us.

Against these tactics, there was little opportunity for retaliation: the large units of business - except for ten or twelve - were already in our hands and we were in a vulnerable position.

The competitive situation, therefore, was altered measurably when we regained the larger share of the business of the Great Atlantic & Pacific Tea Company in December 1938, an account which had not bought directly from us since 1933 and 1935. A. & P., beginning in mid-December 1938, bought 68,064 pounds and for the full year 1939, bought 1,739,450 pounds. Transfer of this business to our account represented not only the largest single transition in 1939, but was more than sufficient to offset the benefits derived by the competitor through his infiltration in other directions in 1938.

Losses originating in 1939 were relatively unimportant. One exception is notable.

Armour & Company, whose purchases of converted "Cellophane" have been made for several years almost exclusively through Shellmar Products Company, transferred their annual contract at its expiration in the middle of the year to the competi-

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tive converter, Daniels Manufacturing Company, on a price basis unattractive to our converter.

Other changes in the competitive situation are described in condensed form in the following review. Detailed below are comparative figures showing the distribution of sales of the "Cellophane" Division and Sylvania for 1938 and 1939:

ESTIMATED DISTRIBUTION - DU PONT AND SYLVANIA SALES

(Pounds)

DU PONT

Industry	1939 Sales	%*	1938 Sales	%*	Change
Cigarettes	11,942,000	89.3	10,966,000	89.2	+ 976,000
Cigars	2,255,000	65.3	1,893,000	58.0	+ 362,000
Other Tobacco	2,157,000	91.1	1,728,000	89.9	+ 429,000
Candy	3,265,000	74.8	2,628,000	75.5	+ 637,000
Baked Goods	17,149,000	75.4	13,298,000	70.9	+3,851,000
Meat	319,000	56.1	385,000	64.7	- 66,000
Other Food Products	2,951,000	87.2	2,398,000	87.3	+ 553,000
Textiles & Hosiery	1,011,000	79.5	789,000	79.9	+ 222,000
Perfumes, Drugs, Soap	813,000	88.7	735,000	93.6	+ 78,000
Paper Products	745,000	79.7	681,000	80.0	+ 64,000
Miscellaneous	1,230,000	73.2	1,055,000	75.1	+ 175,000
Agents & Jobbers	8,345,000	78.2	7,015,000	78.2	+1,330,000
Converters	18,956,000	77.1	15,527,000	78.1	+3,429,000
Export	2,605,000	89.8	2,300,000	88.9	+ 305,000
TOTAL	73,743,000	79.1	61,398,000	78.2	+12,345,000
British Cellophane	3,000	-	100,000	-	- 97,000
GRAND TOTAL	73,746,000	78.3	61,498,000	77.9	+12,248,000

SYLVANIA

Cigarettes	1,425,000	10.7	1,330,000	10.8	+ 95,000
Cigars	1,180,000	34.7	1,370,000	42.0	- 190,000
Other Tobacco	210,000	8.9	190,000	10.1	+ 20,000
Candy	1,100,000	25.2	860,000	24.5	+ 240,000
Baked Goods	5,580,000	24.5	5,455,000	29.1	+ 125,000
Meat	250,000	43.9	210,000	35.3	+ 40,000
Other Food Products	435,000	12.8	350,000	12.7	+ 85,000
Textiles & Hosiery	260,000	20.5	199,000	20.1	+ 61,000
Perfumes, Drugs, Soap	125,000	13.3	50,000	6.4	+ 75,000
Paper Products	190,000	20.3	170,000	20.0	+ 20,000
Miscellaneous	451,000	26.8	350,000	24.0	+ 101,000
Agents & Jobbers	2,330,000	21.3	1,960,000	21.8	+ 370,000
Converters	5,230,000	22.9	4,350,000	21.9	+1,280,000
Export	288,000	10.2	288,000	11.1	+ 8,000
TOTAL	19,402,000	20.9	17,132,000	21.8	+2,330,000
Canadian Sylvania	400,000	-	300,000	-	+ 100,000
GRAND TOTAL	19,802,000	21.2	17,432,000	22.1	+2,430,000

*Represents percentage of total sales secured in each classification.

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COMMENT ON MAJOR INDUSTRIES

CIGARETTES

Competitively, there was essentially no change in the cigarette industry in 1939. R. J. Reynolds Tobacco Company gave Sylvania a volume estimated in excess of 1,000,000 pounds for the third consecutive year. This business, lost for quality reasons, (brittleness) in 1935 has represented Sylvania's only major inroad in the industry. American Tobacco, using du Pont sheeting exclusively on the more popular brands, has given its requirements to Sylvania for two of the lesser units, part of which we regained in 1939. Stephano Brothers likewise continues to give Sylvania a small volume. Brown & Williamson, whose adoption of "Cellophane" for "Wings" late in 1938 brought the last major brand into transparent sheeting, was a large contributor to du Pont's gain in the industry. This concern bought a 10,000 pound order from Sylvania late in 1938, but has since confined all purchases to us.

Not reflected in the tabulated figures is one interesting development - opening tape of "Cellophane" for cigarette packages. Brown & Williamson was the principal consumer of a total approximating 100,000 pounds bought from converters of du Pont "Cellophane".

CIGARS

Official figures released by the Bureau of Internal Revenue show a gain in cigar production of 3.4% in 1939 compared to the previous year. In contrast to this moderate industry increase, direct sales of "Cellophane" rose 19.1%, principally through displacement of Sylvania volume and to a lesser degree through elimination of foil sold by Reynolds Metals Company.

Taking into account the industry increase, there is an indicated transition of business in our favor of approximately 298,000 pounds. However, due to special conditions obtaining with

some of our large customers involving inventory adjustments, a better estimate of the actual transition would be 230,000 pounds from Sylvania and 43,000 pounds from Reynolds Metals Company.

Largest gains in order of their importance were 128,000 pounds with Porto Rican American Tobacco Company, 63,000 pounds with Jno. H. Swisher & Sons and 30,000 pounds with I. Lewis Cigar Company - all from Sylvania. Webster-Eisenlohr and Garcia Grande gave us 43,000 pounds of additional business formerly held by Reynolds Metals Company. Incidentally, this eliminates foil from all the major accounts in the cigar industry.

There were no major losses in the cigar industry in 1939.

TOBACCO

Despite the fact our sales to this industry increased 24.8%, there was little change in the competitive picture. New business, largely on cigarette tobacco, was mainly responsible for our more favorable showing, as Sylvania's customers do not have the same degree of participation in this branch of the industry as do the accounts whose business we hold.

Sylvania was partially displaced to the extent of 17,000 pounds with P. Lorillard Company, a competitive account of long standing due to mechanical difficulties encountered with our material some years back. The competitor's only other sizable unit of business in this industry is with American Tobacco Company whose requirements for tobacco were estimated to have been 150,000 pounds in 1939.

CANDY

Du Pont's position in the candy industry appears to have been slightly reduced by competitive inroads in 1939 despite impressive progress in development activity in an industry whose dollar sales increased but 2.9% for the year.

Losses principally responsible for this change were limited to a few accounts. Peter Paul is estimated to have diverted about 30,000 pounds to Sylvania because of inability to obtain a satisfactory printing operation with our film for candy bars. Daggett Chocolate and Minter Brothers also diverted smaller volumes to the competitor for quality reasons.

The largest loss, however, is not reflected in our tabulated figures since it was business placed through converters. Kraft Phenix Corporation, as the result of sticking difficulties, specified competitive film, calculated to have reduced our volume by 61,000 pounds.

Also contributing to the competitor's improved standing with respect to direct sales to the trade was an item of about 60,000 pounds with American Chicle Company. This was not a competitive loss, but represented a shift from purchases of printed film through the competitive converter, Forbes, to direct purchases from Sylvania.

Against these various items we have, of course, a number of gains. Largest gain by du Pont competitively was with Quaker Maid Company, Candy Division of the Great Atlantic & Pacific Tea Company, from whom we secured 58,000 pounds of business previously held by Sylvania. The Collins (caramel) Division of Peter Paul also provided a du Pont gain of 34,000 pounds partially displacing the competitor.

BAKED GOODS

Regaining approximately 85% of the business of the Great Atlantic & Pacific Tea Company was unquestionably the outstanding competitive development of the year. Exclusive of business placed with our converters, we sold A. & P. approximately 1,680,000 pounds for baked goods in 1939 compared to 68,000 pounds in 1938.

Because of the importance of this gain and its effect on our general position in the industry, numerous other developments have been over-shadowed.

The situation in the baked goods industry at the end of 1938 had one definitely critical aspect:

Sylvania in a heavy drive for volume, as previously outlined, had secured an important share of the business with our then second largest customer, General Baking Company. Moreover, in the last two months of the year the competitor was able to break our hold on the business of Purity Bakeries and Schulze, and secured large volumes with these accounts. Ward Baking placed all its Pittsburgh business with the competitor in 1938, and Wagner Baking, Kroger Grocery & Baking and Doughnut Corporation of America showed definite shifts to the competitor.

These inroads made by Sylvania in 1938 carried over into 1939 with marked effect and enabled the competitor to offset a large share of the A. & P. gain. Purity, Schulze and Kroger are estimated to have given Sylvania the benefit of approximately 100,000 pounds each despite the fact we have secured large increases through growth with Schulze and Kroger. In addition to these inroads, we likewise suffered losses in the cracker and biscuit division of the industry, with Sylvania taking an estimated 60,000 to 70,000 pounds from Keebler-Weyl as a result of dissatisfaction with our material's mechanical performance.

New losses to Sylvania in 1939, however, were at a minimum.

General Baking Company has been partially regained and it is estimated Sylvania has lost about 60,000 pounds to us with this account in 1939. A like quantity was regained from Cortland Baking Company, in which the competitor was completely eliminated.

MEAT

The indicated transition to Sylvania in this industry is modified by two factors. Our decline in direct sales is primarily the result of a decrease of 52,000 pounds of moistureproof film sold to the industry for wrapping veal carcasses and meats for

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freezer storage. Also, on second grade plain transparent sheeting we would not meet the competitor's price concessions on this type material and lost ground slightly as a consequence.

By far our most serious loss in the industry was the transfer of Armour's printed requirements to the competitive converter Daniels at a price which our own converters considered unprofitable. This business was lost for the last six months of 1939 under a contract running for one year, and it is estimated the annual volume will approximate 450,000 pounds. Daniels continues to hold the converted volume of Swift & Company, also on a price basis. Swift's annual requirements are estimated at 500,000 pounds.

Partially offsetting the Armour situation were gains secured through our converters with Felin, Vogt and Hygrade, estimated at 67,000 pounds.

OTHER FOOD PRODUCTS

As used here, this classification includes an exceptionally wide range of products; viz., cereals, frozen foods, dried fruit, nuts, macaroni, tea and coffee and many others. Du Pont has had, and continues to maintain, a dominating position in nearly every sub-division in this group.

Detailed review of individual accounts shows no important competitive changes to have occurred in 1939.

TEXTILES and HOSIERY

Little significance attaches to the apparent change in positions in this industry since the figures given do not reflect the large volume of business we secure through agents and converters. No major competitive developments are reported for this classification in 1939.

OTHER INDUSTRIES

Two developments adversely affected our relative standing in the Perfumes, Soap and Drug classification. The B. C. Remedy

Company adopted "Cellophane" in the latter part of 1938 for their headache powders and immediately encountered difficulty in securing satisfactory operation of our film on their automatic wrapping equipment. Sylvania secured and continues to hold this business estimated at 50,000 pounds in 1939. Colgate-Palmolive-Peet Company gave the competitor an estimated 25,000 pounds in 1939, duplicating a special deal package previously wrapped in "Cellophane". Transfer of this business originally resulted in our inability to supply a material to fit the customer's needs.

In the Paper Products division the competitive situation reflects little change over the previous year. Approximately 80% of Sylvania's business in the volume luncheon accessory field remains centered in Beach & Arthur and C. A. Reed. Competitive acetate is a factor in the facial tissue classification, accounting for an estimated 20% of the total volume. Sylvania and Celluloid sell one major account each in the stationery division. There is no other known competitive volume of importance in the paper industry.

The diversification of items in the miscellaneous group makes it difficult to identify shifts in volume. The only transfer of business that appears worthy of comment was with the syndicate and variety store chains where Sylvania partially displaced us on a price basis.

AGENTS and JOBBERS

The tabulated figures covering competitive business through agents are purely estimates, and as such represent a liberal concession to any progress made by competitive distributors. Actually, we know of certain fair sized units of business taken by our agents in 1939 against which we know of few offsetting losses. Also the growth of our paper jobber business to a small degree was at the expense of organizations handling the competitive product.

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CONVERTERS

A change in our policies for legal reasons with respect to rebates and discounts in 1939 eliminated preferential treatment of certain important converters and increased our vulnerability. Milprint, Inc., prior to 1939, almost exclusively a user of du Pont sheeting, terminated its Promotional Converter agreement with us to escape the exlusive purchase clause. The actual loss resulting with this account has been small. Thomas M. Royal & Company, prior to 1939, also nearly a 100% du Pont user, placed a small portion of requirements with Sylvania.

Other factors of importance affecting our position was the loss of the Armour business previously referred to, loss of Kraft-Phenix' caramel business on specification for competitive film with an otherwise 100% du Pont converter, and reduced purchases by Union Bag & Paper Company and Oneida Paper Products Company.

ACTIVITY OF OTHER TRANSPARENT SHEETING PRODUCERS

ACETATE SHEETING

Volume of acetate sheeting sold in 1939 is estimated to have totalled approximately 3,500,000 pounds. This compares with an estimated total of 2,900,000 pounds in 1938.

These estimates include du Pont sales in 1939 amounting to 151,200 pounds, and 104,800 pounds in 1938, both years representing essentially experimental production of semi-works character.

Major share of acetate sheeting sales continue to be in channels and for uses for which our viscose sheeting is not particularly adaptable such as laminations, certain type window boxes and envelopes and industrial uses. The one direct packaging field in which acetate sheeting has been established on a fair scale is in the paper products industry where 1939 total consumption is estimated to have been 150,000 to 175,000 pounds which represented a moderate gain over 1938 consumption.

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GOODYEAR"S RUBBER FILM

Progress by Goodyear Tire & Rubber Company in marketing its rubber hydrochloride, while exceeding that of the previous four years production, made comparatively minor inroads in the packaging field in 1939.

Accurate data on actual output are not available, but it is estimated from private and public sources Goodyear sold approximately 2,000,000 pounds in 1939 compared to 1,000,000 pounds in 1938. The principal applications continue to be for industrial uses such as light-weight raincoats, umbrellas, garment covers, insulation for electrical wire and as liners for containers.

In the packaging field, Goodyear made strenuous efforts to break into established markets for "Cellophane" and were successful in making progress in the field of packaging hygroscopic foodstuffs such as cheese and nut-meats, potato chips, some drug items of the tablet type and on various specialties. Goodyear, however, was unsuccessful in efforts to displace du Pont material in the tobacco industries, baked goods, candy and other fields which comprise major outlets for viscose sheeting.

IMPORTS

Department of Commerce records show there were 70,412 pounds of Japanese (viscose) film imported into the United States in 1939, compared with 45,200 pounds in 1938. Imports from other nations were negligible.

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GOV T EXHIBIT NO. 81.....
Civil Action 1216

"CELLOPHANE" CELLULOSE FILM

COMPARISON WITH COMPETITION

YEAR 1940 AND PRIOR YEARS

	% of Industry				1940 Sales in Pounds
	1937	1938	1939	1940	
Du Pont	79	78	79	79	81,659,000
Sylvania Industrial Corp.	21	22	21	21	22,113,000
	100	100	100	100	103,772,000

Remarks:

Tobacco Industries

No major change developed with accounts in the cigarette classification, but du Pont made considerable progress in the cigar field displacing an estimated 150,000 pounds of competitive sheeting, principally with Jno. H. Swisher Sons and smaller producers in the Lancaster York County area.

The gain in the cigar field is measured by an increase of 6.5% in sales of "Cellophane" compared to an increase of 0.8% in industry output. The threat of competition from foil manufacturers was largely eliminated in 1939, and was no appreciable factor during 1940.

Regarding smoking and chewing tobacco, du Pont was able to divert the greater share of the business of P. Lorillard, almost wholly competitive

between 1935 and 1939. Increased volume secured with this account for smoking tobacco was approximately 66,000 pounds in 1940.

Sylvania continues to hold an estimated 1,200,000 pounds per year with R. J. Reynolds for cigarettes, volumes of the order of 200,000 pounds annually with such accounts as American Tobacco, Consolidated Cigar and Swisher for cigars, and possible 150,000 pounds per year for smoking tobacco with the American Tobacco Company - all of which accounts also are major du Pont outlets.

Candy Industry

Du Pont's position in this industry was considerably improved in 1940, with a large transition of business from Kraft Cheese (caramels) adding in excess of 140,000 pounds of sheeting to our total. Dissolution of the business of one of Sylvania's jobbers enabled us to secure business with two accounts aggregating 65,000 pounds, and our agent, H. D. Catty Corporation, eliminated the competitor from Edgar P. Lewis for a gain of 70,000 pounds.

Offsetting losses of importance to Sylvania were limited to a few accounts. Chief loss was with Peter Paul, estimated at 70,000 pounds. Stephen F. Whitman and United Drug, prestige accounts, gave us the bulk of their requirements, but were responsible for a combined decrease of 11,000 pounds.

Baking Industry

Comprehensive review of the baking industry shows Sylvania made comperatively few gains of importance, /3630

nor were we able to completely divorce large units from the competitor.

One major exception was the business of the bread and cake plants of National Biscuit Company. Du Pont has secured practically the entire requirements of this company for crackers and biscuits for some years, but Sylvania has had the greater share of purchases for other products. Current indications are that this business has been shifted wholly to du Pont. This development, however, occurred late in the year and did not materially affect our full year position in this industry.

Meat Packing

Du Pont volume was materially reduced by loss of the Armour business in July 1939, when the competitive printer, Daniels Manufacturing Company secured the customer's annual contract on a price basis. Daniels also obtained the 1940-1941 contract on similarly low quotations. Volume of business represented by Armour's printed requirements is estimated at 400,000 pounds annually. Further inroads were made by Daniels with the Morrell account and we have a resulting decrease there of 50,000 pounds in sales through Converters. Printers and Converters of du Pont sheeting have considered prices offered by Daniels as unprofitable.

Food Products

Major competitive development was our loss of the greater portion of the business of General Foods whose purchases from us in 1940 represented

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crease of 431,000 pounds in this customer's takings for frozen foods. Part of this decrease, however, was caused by forward buying in October 1939, when the customer bought more than a third of its annual requirements in one month. It is considered actual volume placed with Sylvania for frozen foods was not in excess of 200,000 pounds. Du Pont continues to secure this customer's business for cereals, which totalled 230,000 pounds in 1940.

Converters

Substantial progress was made in securing a greater share of Converter business in 1940, of which it is estimated du Pont has approximately 80%.

Most notable development in 1940 was with Milprint, Inc., a major Converter, who terminated its Promotional Converter agreement with us in June 1939, and after placing a small share of its requirements with Sylvania for some months, returned to 100% alignment with du Pont in April 1940. Nashua Gummed & Coated Paper Company which, prior to December 1939, gave us a small portion of its total requirements came to us on a near 100% basis in 1940, buying approximately 540,000 pounds from du Pont compared to 195,000 pounds in 1939. Competitive gains also were recorded with American Paper Goods, up 23,000 pounds, Forbes Lithographing, up 47,000 pounds, Union Bag & Paper Company, up 150,000 pounds and with U. S. Envelope whose business declined slightly but where our percentage of the total improved.

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Against these gains were losses with Marathon Paper Mills, down 90,000 pounds with actual loss somewhat greater and Thos. M. Royal whose increase of approximately 25,000 pounds in purchases from us obscures increased taking from Sylvania.

Cellulose Acetate Sheeting

Du Pont sold 271,000 pounds of thin cellulose acetate sheeting in 1940 compared to 151,000 pounds in 1939, when commercial production was begun by us.

These volumes are included in an estimated total of 1940 sales of this type material of approximately 4,000,000 pounds, representing primarily volumes of the Celluloid Corporation and Eastman, both of which competitors have been in the field for nearly 10 years.

Goodyear Rubber Film

Estimates put volume at 2,500,000 pounds, or about 25% above the 1939 figure. This film has been used mainly in applications for which "Cellophane" viscose or acetate sheeting has not been suitable, particularly rain coats, umbrellas and other products requiring stitching, and in various industrial uses.

Thus far, Goodyear has not been particularly successful in displacing viscose or acetate films for packaging, except in isolated instances. Progress made in 1939 and earlier on such products as cheese, nut-meats and potato chips has been reduced appreciably. On the other hand, rubber film

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has found new markets for packaging of coffee, meat loaves, celery and certain other hygroscopic foodstuffs, and because of its waterproof characteristics, continues to be tested in practically all our consuming industries.

Submitted by:

C. F. Brown
Director of Sales.

Approved by:

T. L. Hines, Assistant Manager
"Cellophane" Division

Prepared by:

H. O. Ledd, Manager
Trade Analysis Section

13680

CELLOPHANE CELLULOSE FILM
COMPARISON WITH COMPETITION
YEAR 1941 AND PRIOR YEARS

GOV'T EXHIBIT NO. 82
Civil Action 1216

VISCOSE FILM	PER CENT OF INDUSTRY 1938	1939	1940	1941	1941 SALES IN POUNDS
Du Pont	78	79	79	79	104,762,000
Sylvania Industrial Corp.	22	21	21	21	27,260,000
	100	100	100	100	132,022,000

GENERAL

1941 output of viscose cellophane, considering Du Pont and Sylvania, is estimated to have increased 27.8% over the 1940 total of 103,230,000 pounds. This increase developed both through extension in use for new products and increased requirements of established consumers.

Competitively, the situation was abnormal during the second half of the year, both producers being unable to meet demand during the seasonal peak, and for the first time were obliged to allocate business to established customers. Further complication was added by Limitation Order L-20, issued November 8, 1941, which proscribed the sale or use of cellophane for a wide range of products; amended January 10, 1942 to include additional items. The original order eliminated about 10% of our established markets, the amendment an additional 3% or 4%, penalizing Du Pont in slightly greater proportion because our diversification was heavier in the proscribed fields than that of the competitor. A secondary unbalance competitively also has been created because approximately three-quarters of the curtailed Du Pont volume was in non-moistureproof films. This latter consideration, however, was of such late [redacted] as to not be evident in 1941 ratios.

AT-13631

Comparative figures for plain and moistureproof film:

	PLAIN		MOISTUREPROOF		TOTAL	
1940	POUNDS	%	POUNDS	%	POUNDS	%
Du Pont	19,224,000	79.2	62,435,000	79.1	81,659,000	79.2
Sylvania	5,002,000	20.8	*16,509,000	20.9	21,571,000	20.8
Total	24,256,000	100.0	78,944,000	100.0	103,230,000	100.0
1941						
Du Pont	25,595,000	79.5	79,167,000	79.4	104,762,000	79.4
Sylvania	6,600,000	20.5	20,660,000	20.6	27,260,000	20.6
Total	32,195,000	100.0	99,827,000	100.0	132,022,000	100.0

*Revised.

TOBACCO INDUSTRY

Relative positions of Du Pont and Sylvania remained highly stable in the cigarette and smoking tobacco classifications, with sales by Du Pont increasing slightly faster than the rate for industry output. In the cigar industry, however, some competitive gain was made by Du Pont, our volume increasing 15.3% compared to a gain in cigar production of 8.1%.

BAKING INDUSTRY

Slightly improved position was attained by Du Pont through acquisition of a large block of West Coast business in the middle of the year, and benefits accruing from the late 1940 re-capture of National Biscuit Company's bread and cake business.

CANDY INDUSTRY

No major change developed with accounts in the candy industry in the competitive sense in 1941. Growth in output and new business were principal contributors to Du Pont's largely augmented volume.

MEAT PACKING

Sylvania continued to dominate the situation with Swift and Armour through a competitive printer, Daniels Manufacturing Company, who again secured these customers' annual contracts

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MEAT PACKING - continued

at prices considered unprofitable by printers of Du Pont film. Daniels, however, was displaced with several secondary packers.

FOOD PRODUCTS

As in 1940, the principal competitive development was with General Foods Corporation whose purchases for frozen foods were diverted to Sylvania in 1940, then regained by us in May 1941. Du Pont's year vs. year gain was 323,000 pounds with respect to the frozen food business of General Foods.

CONVERTERS

Du Pont maintained its exclusive position with the largest converters and made a series of gains with second rank accounts, including American Paper Goods Company, Continental Bag & Specialties Company, Cuneo Press, Forbes Lithographing Company, Marathon Paper Mills, Union Bag & Paper Company and Whiting Patterson, losing ground only with one converter of size, Thomas M. Royal.

CELLULOSE ACETATE SHEETING

Du Pont sold 719,000 pounds of thin cellulose acetate sheeting in 1941, the third year of commercial production by us. This compares with Du Pont sales of 271,000 pounds in 1940. It is estimated total sales of thin acetate sheeting in 1941 were approximately 3,000,000 pounds, including the Celluloid Corporation, Eastman, Du Pont and the minor producers.

GOODYEAR RUBBER FILM

No adequate estimates are available, but it is believed the total volume of rubber film sold in 1941 was between 2,000,000 and 3,000,000 pounds. The larger share of rubber film consumption in 1941 continued to be for specialized uses, where its characteristics made it more suitable than viscose and acetate films.

13631

GOV'T EXHIBIT NO. 83
Civil Action 1215

Extract

#1677

EXTRACT FROM MINUTES OF EXECUTIVE COMMITTEE MEETING #1677
~~MARCH FOURTH, 1942~~ March fourth 1942

X-684

E. I. DU PONT DE NEMOURS & COMPANY

ANNUAL COMPETITIVE REPORT - 1941 - RAYON DEPARTMENT was submitted by B. M. May, Assistant General Manager, dated February 27, 1942 (#6637), and after discussion of certain matters referred to in this report, it was ordered filed.

FILED EXECUTIVE COMMITTEE ROOM

C-8729

E. I. du PONT de NEMOURS & COMPANY, INC.

RAYON DEPARTMENT

Wilmington, Delaware
February 27, 1942

TO: EXECUTIVE COMMITTEE

FROM: B. M. MAY, ASST. GENERAL MANAGER,
RAYON DEPARTMENT

ANNUAL COMPETITIVE REPORT - 1941
(Extracts pertaining to regenerated cellulose products)

* * *

	% of Industry Sales				Du Pont 1941 Sales in Pounds
	1938	1939	1940	1941	
Moistureproof cellophane	78	79	79	79	77,270,000
Plain cellophane	78	79	79	80	23,730,000
Total cellophane	78	79	79	79	101,000,000
Cellulose caps & bands	78	77	77	72	1,065,100*
Cellulose sponges**	7	8	11	36	227,000

* M units.
** Percentage of total cellulose and natural sponge sales

* * *

CELLOPHANE FILM

VISCOSE FILM

	% of Industry				1941 Sales in Pounds
	1938	1939	1940	1941	
Du Pont	78	79	79	79	101,000,000
Sylvania Industrial Corp.	22	21	21	21	27,000,000
TOTAL	100	100	100	100	128,000,000

Estimated sales of viscose cellophane, by du Pont and Sylvania, increased 28% over the 1940 total of 103,230,000 pounds. This increase developed through extension in use for new products and increased requirements of established consumers.

Competitively, the situation was abnormal during the second half of the year, both producers being unable to meet demand during the seasonal peak, and for the first time were obliged to allocate business to established customers. Further complication was added by Limitation Order L-20, issued November 8, 1941, which proscribed the sale or use of cellophane for a wide range of products; amended January 10, 1942 to include additional items. The original Order eliminated about 10% of our established markets, the current an additional 3% or 4%, penalizing du Pont in slightly greater proportion because our diversification was heavier in the proscribed fields than that

of the competitor. A secondary unbalance competitively also has been created because approximately three-quarters of the curtailed du Pont volume was in non-moistureproof films. This latter consideration, however, was of such late occurrence as to not be evident in 1941 ratios.

No adequate estimates of 1941 sales of Goodyear's "Pliofilm" (rubber hydrochloride) are available, but it is believed the total volume sold in 1941 was between 2,500,000 and 3,000,000 pounds. The larger share of rubber film consumption in 1941 continued to be for specialized uses where its characteristics made it more suitable than viscose and acetate films. The shortage of rubber has now eliminated the use of "Pliofilm" from all but irreplaceable military needs.

Tobacco Industry - Accounts for about 19%* of Sales

Relative positions of du Pont and Sylvania remained highly stable in the cigarette and smoking tobacco classifications, with sales by du Pont increasing slightly faster than the rate for industry output. In the cigar industry, however, some competitive gain was made by du Pont, our volume increasing 15% compared to a gain in cigar production of 8%.

Baking Industry - Accounts for about 33%* of Sales

Slightly improved position was attained by du Pont through acquisition of a large block of West Coast business in the middle of the year, and benefits accruing from the late 1940 re-capture of National Biscuit Company bread and cake business.

Candy Industry - Accounts for about 10%* of Sales

No major change developed with accounts in the candy industry in the competitive sense in 1941. Growth in output and new business were principal contributors to du Pont's largely augmented volume.

Meat Packing - Accounts for about [illegible]% of Sales

Sylvania continued to dominate the situation with Swift and Armour through a cooperative printer, Daniels Manufacturing Company, who again secured these customers' annual contracts at prices considered unprofitable by printers of du Pont film. Daniels, however, was displaced with several secondary packers.

Food Products - Accounts for about 12%* of Sales

As in 1940, the principal competitive development was with General Foods Corporation whose purchases for frozen foods were diverted to Sylvania in 1940, then regained by us in May 1941. Du Pont gained 323,000 pounds over 1940 in the frozen food business of General Foods.

Converters

Sales to converters amounted to about 24% of total sales. This film processed by converters, was consumed by the various industries indicated above.

Du Pont maintained its exclusive position with the largest converters and made a series of gains with second rank accounts.

* Percentages include direct sales and estimated sales by converters, agents, etc. to this industry.

* * *

EXPORTS

In line with increased domestic sales, export sales increased from 2,833,000 pounds in 1940 to 3,775,000 pounds in 1941 with little change in the competitive picture. The war has practically eliminated exports from continental Europe and Japan. It is estimated that du Pont sales were about 90% of exports from the United States.

CELLULOSE CAPS & BANDS

	% of Industry				1941 Sales
	1938	1939	1940	1941	in M units
Du Pont	78	77	77	72	1,065,100
Celon	17	19	20	25	369,000
Sylvania Industrial Corp.	5	4	3	3	43,000
TOTAL	100	100	100	100	1,477,100

Our total sales in 1941 represent an increase over 1940 of 4%, the major part of which resulted from increased purchases by established customers. Reports for previous years have been based on field information obtained largely from distributors but believed accurate. Data from these sources indicate that our competitive position improved from 77% of the industry in 1940 to 79% in 1941. More accurate estimates are now possible because of royalties received from the Celon Company which indicate our share of the market to be 72%.

Distilled Spirits - Representing 73% of Total Sales

Sales in 1941 increased 52% over 1940. Du Pont enjoyed 73% of Sales, Celon 24% and Sylvania 3%.

Wine - Representing 13% of Total Sales

Sales in 1941 were 51% higher than in 1940. Du Pont's share of total sales was 76%, with 23% for Celon and 1% for Sylvania.

Drugs, Toilet Preparations and Food Products - Representing 8% of Total Sales

Sales to manufacturers of food products declined in 1941, but increased sales to the drug and toilet preparations industries resulted in a combined increase in 1941 of 25%. Here our competitive position improved slightly to 80%, with 18% for Celon and 2% for Sylvania.

Airplane Manufacturers

The sale to plane manufacturers of caps to seal the ends of tubing and other openings to prevent the entrance of foreign bodies during engine construction, has grown from 3,600M units in 1940 to 12,800M units in 1941.

General

Parke-Davis continues to sell self-shrinking gelatine caps in small sizes for cheap toiletries at prices too low for "Cel-O-Seal" competition. Estimated sales in 1941 were 40,000M units, an increase over 1940 of 60%.

Aluminum fluted caps and "Roll-On" seals have been eliminated due to the strategic position of aluminum. Lead and aluminum foil caps and metal bands are becoming increasingly scarce. Some increase in our volume in 1941 was due to this shortage. Sales of seals of these types in 1941 are estimated to have been 1,500,000M units.

Export sales totaled 82,200M units or 8% of domestic sales.

CELLULOSE SPONGES

	% of Industry								1941 Sales	
	1936		1939		1940		1941			
	$	lbs.	$	lbs.	$	lbs.	$	lbs.	$	lbs.
Du Pont	12	7	13	8	16	11	26	36	807,000	227,000
Natural sponges	88	93	87	92	84	89	74	63	2,269,000	397,000
TOTAL	100	100	100	100	100	100	100	100	3,076,000	624,000

Competitive data involving only natural sponges are presented.

In previous years competitive data was presented on a dollar sales basis since there is no wholly satisfactory unit common to natural and cellulose sponges. During the past year the dollar basis of comparison has become misleading because of the extraordinary increase in unit prices of natural sponges. It is felt that the poundage basis is to be preferred, although the respective weights do not yeild the same effective utility.

Estimated pound sales of both varieties of sponges in 1941 decreased 22% from 1940, although dollar sales increased 38%. During the same period the pound sales of cellulose sponges increased from 90,000 pounds to 231,000 pounds, while dollar sales increased from $54,000 to $139,000 in the same proportion.

Exports amounted to less than 2% of domestic sales.

GOV'T EXHIBIT NO. 84
Civil Action 1216
X-684

EXTRACT FROM MINUTES OF EXECUTIVE COMMITTEE MEETING # 1746

MARCH THIRD, 1943

E. I. DU PONT DE NEMOURS & COMPANY

ANNUAL COMPETITIVE REPORT - 1942 - RAYON DEPARTMENT:

Report was presented from L. A. Yerkes, General Manager, Rayon Department, dated March 1, 1943 (#8747), on the above subject. After discussion with Mr. Yerkes of certain matters referred to therein, the report was ordered filed.

RETURN TO EXECUTIVE COMMITTEE ROOM

C 8730

E. I. du PONT de NEMOURS & COMPANY, INC.

RAYON DEPARTMENT

Wilmington, Delaware
March 1, 1943

TO: EXECUTIVE COMMITTEE

FROM: L. A. YERKES, GENERAL MANAGER
RAYON DEPARTMENT

ANNUAL COMPETITIVE REPORT - 1942
(Extracts pertaining to regenerated cellulose products)

* * *

	% of Industry Sales				Du Pont 1942 Sales in Pounds
	1939	1940	1941	1942	
Moistureproof cellophane	79	79	79	75	71,700,000
Plain cellophane	79	79	80	72	10,920,000
Total cellophane	79	79	79	74	82,620,000
Cellulose caps & bands	77	77	72	72	969,155*
Cellulose sponges**	8	11	36	64	315,000

* M units
** Percentage of total cellulose and natural sponge sales

* * *

CELLOPHANE FILM

VISCOSE FILM

	% of Industry				1942 Sales in Pounds
	1939	1940	1941	1942	
Du Pont	79	79	79	74	82,620,000
Sylvania Industrial Corp.	21	21	21	26	28,000,000
TOTAL	100	100	100	100	110,620,000

Domestic sales of viscose cellophane, by du Pont and Sylvania in 1942, are estimated to have declined 14% from the 1941 total of 128,000,000 pounds. The principal factors responsible for the decrease in volume by both companies were Limitation Orders of the War Production Board and an approximate 7% reduction in film thickness by both producers to conserve materials.

The Limitation Orders are believed to have affected du Pont disproportionately because of its relatively heavier participation in sales to industries affected by the Orders. Du Pont, for instance, enjoyed large volumes in soap, textile, hosiery, decorative and specialty fields in which the competitor was comparatively inactive. The net effect of the Orders was to reduce sales of plain film by nearly half while disturbing Sylvania's sales of plain film very little since their volume was concentrated in such industries as meat packing, candy and foods generally. For the same reason

du Pont's moistureproof volume was reduced by an estimated 3,000,000 pounds with Sylvania's moistureproof volume reduced not more than 10% of this figure. It is estimated du Pont lost 15% of its established volume and Sylvania about 5% through Government action.

The Limitation Orders, the first of which was issued November 8, 1941, had little effect on 1941 volumes. Both producers operated at capacity in the last quarter of 1941 and were unable to meet peak demands of the trade. Despite this and the uncertainty of the materials situation, Sylvania solicited and accepted 1942 commitments late in 1941 from numerous customers, previously relying wholly or primarily on du Pont. With diminution of demand early in 1942, the commitments by the competitor late in 1941 enabled him to show substantial improvement during the first half of 1942, a trend which was reversed later in the year. From September 1942 the combined production of du Pont and Sylvania was insufficient to meet civilian demand and large war orders.

Owing to our production difficulties in September and October in preparing special Government film of competitive formulation, Sylvania temporarily supplied the requirements. Accordingly, the W.P.B., by directives, required du Pont to supply Sylvania a total of 1,587,000 pounds for their commercial trade. Since then we have overcome previous difficulties and are producing the Government film at a current rate of a half-million pounds monthly.

Except for one military use it is estimated there were no sales of rubber film in 1942. Uses previously established by Goodyear were replaced with cellophane where possible, or otherwise discontinued. Goodyear's volume in 1941 was estimated between 2,500,000 and 3,000,000 pounds.

WAR USES

In January 1942 there were practically no established military uses for cellophane and by the end of the first quarter only 2%. Developments through the year resulted in 21% of the fourth quarter's business being in the war-use classification; and new applications for replacement of metals amounted to an additional 6% of total volume. This type of business will be the primary objective in order to strengthen our position on allocated critical materials, some of which, at present, we are not receiving a sufficient supply, necessitating changes in types of films produced.

The changes during 1942 in cellophane consumption by industries using substantial quantities are tabulated. The percentages include direct sales and estimated sales by converters, agents, etc., to this industry.

Industry	% of Sales 1941	1942
Tobacco	19	23
Baking	33	36
Candy	10	11
Meat Packing	0	1
Other Food Products	12	18

Converters

Du Pont lost position in terms of total volume, principally because converters of du Pont film were heavy participants in industries restricted by the Limitation Orders, but little competitive change occurred in the permissible industries.

* * *

EXPORTS

Contrary to the trend of domestic business, export sales increased from 3,775,000 pounds in 1941 to 4,871,000 pounds in 1942. Elimination of exports from Europe and Japan to Central and South American countries was partly responsible for the increase, but the volume was augmented by shipments to Australia, Egypt, Iceland, India, Jamaica, Mesopotamia, New Zealand and Syria, countries not previously served. Du Pont sales were estimated to be about 90% of the exports from the United States.

CELLULOSE CAPS AND BANDS

	Estimated % of Industry			Estimated 1942 Sales in M Units
	1940	1941	1942	
Du Pont	77	72	72	969,155
Celon	20	25	25	337,617
Sylvania Industrial Corp.	3	3	3	39,405
TOTAL	100	100	100	1,346,177

Du Pont's total sales in 1942 represent a decrease under 1941 of 9%, caused principally because of decreased purchases by established customers. The curtailment of distilling for liquor in the latter months of the year, to make alcohol for synthetic rubber, almost eliminated the amount of liquor formerly available for blending and bottling. As a result of this and the limitation of cellulose seal uses on some nonessential material, the total volume of bands sold reduced substantially.

Distilled Spirits - (Represent 71% of 1942 Sales)

Sales in this industry decreased 9% below 1941. Our share of sales is estimated to represent 74% of the volume. The Celon Company obtains the major portion of the balance.

Wine - (Represent 14% of 1942 Sales)

Our sales were 4% less in volume than in 1941. It is estimated that du Pont's share in this industry represents more than 50% of total sales.

Drugs, Toilet Preparations and Food Products - Represent 5% of 1942 Sales)

Sales to manufacturers of these products declined 42% in 1942, due mainly to the restrictive effects of Limitation Order L-20.

Airplane Manufacturers.- (Represent 5% of 1942 Sales)

The sale to plane manufacturers of caps to seal the ends of tubing and other openings to prevent the entrance of foreign bodies during engine construction and plane assembly, grew from 12,800 M units in 1941 to 48,800 M units in 1942. This has taken our total capacity of cap manufacture and important commercial business has had to be refused.

General

Parke-Davis continues to sell self-shrinking gelatine caps, mainly in small sizes for cheap toiletries, at prices too low for "Cel-O-Seal" competition. Their 1942 sales were estimated at 50,000 M caps - an increase over 1941.

The production of aluminum and lead foil caps was discontinued by order of W.P.B. in 1942. We were unable to obtain accurate estimates on the quantity of these seals sold.

Export sales totaled 80,000 M band-units, or about 8% of domestic sales - a decrease under 1941 of 3%.

CELLULOSE SPONGES

	% of Industry				1942 Sales
	1939	1940	1941	1942	in Pounds
Du Pont	8	11	36	64	315,000
Natural Sponges	92	89	64	36	175,000
TOTAL	100	100	100	100	490,000

Competitive data involving only natural sponges are presented.

The estimated total sales, representing $3,512,000 in 1942, increased 14% over 1941 although estimated sales in pounds decreased 19%. During the same period, the estimated sales of cellulose sponges in pounds increased 51% with a corresponding increase in dollar sales from $807,000 to $1,217,000.

Export sales during 1942 were less than 1% of domestic sales.

The abnormal condition, brought about by the sponge blight, continued to affect the natural sponge market in 1942. Because of the limited supply, prices of better grade natural sponges increased 50% to 75%, at which approximate level prices were frozen by O.P.A. Although it is now reported that the blight has disappeared and the sponges brought in so far this year are disease-free and in excellent condition, recent Coast Guard restrictions on the operation of fishing boats in the Florida waters will continue the curtailment of supply.

During 1942, the character of the "end use" of the cellulose sponge changed considerably. Requirements of the Armed Forces and various Government agencies amounted to approximately 45% of total sales.

GOV'T EXHIBIT NO. 85
Civil Action 1216

EXTRACT FROM MINUTES OF EXECUTIVE COMMITTEE MEETING #1816.

MARCH FIRST, 1944.

E. I. DU PONT DE NEMOURS & COMPANY

RETURN TO EXECUTIVE COMMITTEE ROOM 9069

RAYON DEPARTMENT - ANNUAL COMPETITIVE REPORT FOR 1943:

Annual report on the above subject was presented from B. M. May, Assistant General Manager, Rayon Department, dated February 28, 1944 (#413). After discussion of certain items referred to therein, the report was ordered filed.

RETURN TO EXECUTIVE COMMITTEE ROOM 9069

C 8731

Wilmington, Delaware
February 28, 1944

TO: EXECUTIVE COMMITTEE

FROM: RAYON DEPARTMENT

ANNUAL COMPETITIVE REPORT - 1943
(Extracts pertaining to regenerated cellulose Products)

War has obliterated the conventional features of a competitive market. The demand for our products was substantially in excess of our capacity to produce. To a varying degree, the manufacture and sale of our products were determined by the requirements and regulations of the Government. Prices were largely a function of ceilings. Competitive activities were inconsequential in their effect on our business.

Our domestic sales for the year 1943 and our estimated share of the total business for the past four years are shown in the table below.

	Percent of Industry Sales				Du Pont 1943 Sales in Pounds
	1940	1941	1942	1943	
Cellophane Division					
Cellophane	79	79	74	77	91,500,000
Caps and Bands	77	72	72	74	1,100,000*
Sponges**	11	36	64	58	340,000

* M Units
** Percentage of total cellulose and natural sponge sales

* * *

CELLOPHANE DIVISION

Viscose Film

Du Pont's domestic sales of viscose cellophane increased 10.7% over 1942. It is estimated that Sylvania's sales have remained unchanged.

	Percent of Industry				Estimated 1943 Sales In Pounds
	1940	1941	1942	1943	
Du Pont	79	79	74	77	91,451,000
Sylvania	21	21	26	23	28,000,000
Total	100	100	100	100	119,451,000

Our plants operated at capacity throughout the year and this, we believe, was the case with our competitor.

At no time was the industry in a position to supply the full requirements of the civilian trade permissible under War Production Board Limitation Order L-20 and, as the year progressed, the volume available for civilian use decreased,

as Government and metal-replacement business continued to mount.

It is interesting to note the increasing share which moistureproof cellophane is obtaining of our total sales. This trend was accentuated by the technical requirements of war uses. The recent decline of plain cellophane as a percent of the total was due to Government prohibitions and restrictions which eliminated cellophane from certain uses, such as the wrapping of textiles, etc., and brought about curtailments in other fields.

	Moistureproof		Plain		Total
	Pounds	%	Pounds	%	Pounds
1930	6,604,000	52	6,025,000	48	12,629,000
1935	29,947,000	69	13,481,000	31	43,428,000
1940	62,435,000	76	19,224,000	24	81,659,000
1942	74,560,000	85	12,929,000	15	87,489,000
1943	85,159,000	88	11,936,000	12	97,095,000

Cellophane Sales by Trade Classifications

Our sales by end-use, including direct sales and estimated sales by converters, jobbers and agents, were distributed percentage-wise according to principal users, as follows:

Industry	Percent of Sales		
	1941	1942	1943
Tobacco	19	23	22
Baking	33	36	30
Candy	10	11	9
Meat	6	1	1
Other Foods	12	19	16

The reductions were largely the result of W.P.B. Limitation Orders and increased sales to war uses, which are discussed subsequently.

In the field of tobacco products, sales to cigarettes increased 12%, compared to an increase of cigarette sales of 21%. This was partially offset by a decline in sales to cigars and chewing tobacco, resulting in a net gain of only 6.8% or 1,245,000 pounds as compared with 1942.

Direct and indirect sales to frozen foods were approximately 2,300,000 pounds or 2.5% of the total for 1943. This use was greatly stimulated by military requirements, and further substantial increases in this market are expected. Sales to frozen foods were not identified separately in previous years.

Changes in competitive position in the different fields were only of minor order. We experienced a slight gain in cigarettes and meat packing, although competition is still the dominant factor in the latter industry. Approximately 90% of the film to meat packers was sold through converters.

Little competitive change occurred in the converter classification. Converters of du Pont film held a dominant position in the supply and development of converted materials, especially those designed for Government and metal-replacement uses. Laminations of cellophane to itself and to paper and foil for ration bags, ordnance wrappers, protective gas capes, cheese, and frozen food commercial units provided substantial volume increases.

As Government and metal-replacement business increased materially during the year and 75% was in converted form, tonnage moved through converter and fabricator channels increased substantially.

War Uses of Cellophane

During 1943, sales representing Government end-use amounted to 16,465,000 pounds or 17% of our total, as compared to 8,078,000 pounds or 9.5% in 1942. Major uses of cellophane in the war effort were for ration packaging, wrapping of ordnance and other military parts, fabrication into protective gas capes for use by Armed Forces, packaging of foods and tobacco products, drugs, first-aid supplies and Lend-Lease shipments to Australia and India.

The volume of cellophane, used during 1943 for replacement of metals and rubber, likewise showed a substantial gain. In 1942, 2.9% of our total volume was sold for this purpose (2,495,000 pounds), while in 1943 slightly over 7% of our sales were for replacement of these strategic materials (6,900,000 pounds). Important uses of cellophane for replacement purposes were on commercial and institutional frozen food packs, for processed and cream cheese, dehydrated foods, lard, shortening, and smoking tobacco.

Cellophane Export

Du Pont's export shipments were 5,644,000 pounds, an increase of 16% over 1942 as a result of Lend-Lease shipments to Australia and India of over 1,000,000 pounds, and also a substantial tonnage carried over from 1942, due to delay in obtaining shipping space. Sylvania was given about 30% of these Lend-Lease shipments as against our 70%. Du Pont is estimated to have enjoyed about 90% of the export business in 1943.

* * *

"Col-O-Seal" Caps and Bands

	Estimated Percent of Industry			Estimated 1943 Sales
	1941	1942	1943	In M Units
Du Pont	72	72	74	1,063,006
Celon	25	25	24	337,035
Sylvania	3	3	2	31,871
Total	100	100	100	1,431,912

Our total sales in 1943 represented an increase of 11.3% over 1942. Total sales by the Celon Company remained practically constant. Total sales by Sylvania declined nearly 20%.

Caps and Bands Sales by Trade Classifications - M Units

	1943	1942	% Change
Distillers	603,301	774,697	- 22.1
Food Products	261,856	4,586	5,609.9
Wineries	161,970	138,539	16.9
Airplane Parts	81,149	47,488	70.9
Drugs	42,978	38,358	12.0
Chemicals	11,841	8,219	44.1
Miscellaneous	4,581	6,375	- 28.1
Toilet Preparations	234	9,381	- 97.5
Resale	-	21,857	-100.0
Total	1,167,910	1,049,500	11.3

In 1943 distillers produced no alcohol for the manufacture of beverages and further curtailed their bottling operations to conserve warehouse bonded stocks. Our competitive position remained favorable, our sales representing 75% of the estimated total volume.

The production of bottled wine in 1943 is estimated to have declined nearly 25% from 1942. In spite of this decrease, our sales improved 2% over 1942 and represented 60% of the estimated total volume in this trade classification.

Our sales for food products increased from about 5,000,000 units in 1942 to 262,000,000 in 1943, due to restrictions on the sale of cans and metal screw caps for certain food products, notably coffee, resulting in the use by many packers of a glass jar sealed with a paper cap and a "Cel-O-Seal" band. Our sales in this classification amounted to 95% of the estimated total.

Sales to plane manufacturers of caps to seal the ends of tubing and other openings to prevent the entrance of foreign bodies during engine construction and plane assembly absorbed the entire output of our cap manufacturing equipment. Our sales were 70% of the estimated total.

Parke-Davis continues to sell self-shrinking gelatin caps in small sizes for cheap toiletries at low prices. Caps of this type are not suitable for use in airplane construction. We estimate sales of these caps in 1943 at approximately 40,000,000 units.

Export sales of 105,000,000 units amounted to 9% of the combined total of domestic and export sales. This represents an increase of 30% over sales in 1942 and was due mainly to an increase in the manufacture of rum in the West Indies, stimulated by the shortage of whiskey in the United States.

Cellulose Sponges

	Sales as Percent of Industry								1943 Sales	
	1940		1941		1942		1943			
	$	Lbs	$	Lbs	$	Lbs	$	Lbs	Dollars	Pounds
Du Pont	16	11	26	36	35	64	21	58	988,500	340,000
Natural Sponge	84	89	74	64	65	36	79	42	3,307,500	248,000
Total	100	100	100	100	100	100	100	100	4,296,000	588,000

Estimated sales of all sponges increased 20% in value and 22% in poundage over 1942.

Cellulose sponge sales increased 35,000 pounds, or 11% over 1942 and their dollar value declined from $1,217,000 to $988,500, or 19%. This was due to the large amount of Government business accepted at special prices. Sales to the Government alone amounted to $398,000, or 40% of total dollar sales.

The special fine-pore material, sold to North American Aviation for airplane wing filler* was also calculated on the basis of the Government price formula. Total sales at that price level amounted to about 67% of dollar volume and 81% of poundage.

During 1943 the estimated price of natural sponges was $13.34 per pound, as compared with $2.91 for cellulose sponges. The price of natural sponges had risen sharply during 1942 as a result of the sponge blight and increased demand. Ceiling prices were established at 50 to 75% over the 1941 price level. During 1943, C.P.A. raised ceiling prices approximately 15% at the packers' level.

Restrictions on sponge fishing in the Florida waters were eased somewhat during the year and the increased demand for sponges of all kinds was responsible for the largest dollar volume in history. It is also estimated that a fair volume of sponges were imported from Cuba as the shortage in shipping space became less acute.

Few sponges of any kind were available for civilians during 1943.

Export sales during 1943 were less than 1% of domestic sales.

GOV'T EXHIBIT NO. 86
Civil Action 1216

EXTRACT FROM MINUTES OF EXECUTIVE COMMITTEE MEETING #1887.

MARCH SEVENTH, 1945.

E. I. DU PONT DE NEMOURS & COMPANY

RAYON DEPARTMENT ANNUAL COMPETITIVE REPORT FOR 1944, dated March 1, 1945 (#3075), was presented from B. M. May, Assistant General Manager, and after discussion of certain matters referred to therein, the report was ordered filed.

RETURN TO EXECUTIVE COMMITTEE ROOM 9069

C 2732

Wilmington, Delaware
March 1, 1945

TO: EXECUTIVE COMMITTEE

FROM: RAYON DEPARTMENT

ANNUAL COMPETITIVE REPORT - 1944
(Extracts pertaining to regenerated cellulose products)

* * *

DOMESTIC SALES

* * *

	Percent of Industry Sales (1)				Du Pont 1944 Sales in Pounds -000,000-
	1941	1942	1943	1944	
Cellophane Division					
Cellophane	79	74	77	77	90.6
Caps and Bands	72	72	74	75	1.1(2)
Sponges (3)	36	64	58	53	0.3

(1) Including du Pont
(2) M. Units
(3) Percentage of total cellulose and natural sponge sales

* * *

CELLOPHANE DIVISION

Viscose Film

The net effect of the wood pulp restrictions on the yearly result of the industry was less than 1% as compared with 1943 because the restrictions did not become effective until the end of April. Production during the first four months was at maximum rates.

	Estimated Sales As Percent of Industry				1944 Sales in Pounds -000,000-
	1941	1942	1943	1944	
Du Pont	79	74	77	77	90.6
Sylvania	21	26	23	23	27.8
Pounds (000,000)	128	111	119	118	

At no time was the industry in a position to supply the full requirements of the civilian trade. Civilian film was allocated to individual customers according to their past purchases.

Following is the Proportion of du Pont's war and civilian business for 1944:

Quarter	War	Civilian
1st	28%	72%
2nd	39	61
3rd	41	59
4th	44	56
Year 1944	38	62
1943	17	83

War shipments in 1944 were 35,434,000 pounds as compared with 16,465,000 pounds for 1943, an increase of 115%. Major war uses were ration packaging, wrapping of ordnance, protective gas capes for use by the Armed Forces, packaging of tobacco products, foods, drugs, and pressure sensitive tape.

We have been informed that Sylvania's proportion of war business is approximately comparable to du Pont's.

* * *

Non-Cellulosic Films

Numerous non-cellulosic films are now being manufactured competitively for special war purposes. These include the modified rubber and vinyl types, etc. Some of these films may be superior in functional properties to the cellulosic-base sheetings. Higher material and fabrication costs may limit them to special uses.

"Cel-O-Seal" Caps and Bands

	Estimated Sales As Percent of Industry				Estimated 1944 Sales
	1941	1942	1943	1944	(000,000 units)
Du Pont	72	72	74	75	1,113
Celon	25	25	24	23	345
Sylvania	3	3	2	2	36
Units (000,000)	1,477	1,346	1,432	1,503	

Our domestic sales of caps and bands and those of the industry for 1944 represent an increase of approximately 5% over 1943.

Du Pont's Caps and Bands Sales
by Trade Classification*
- 000,000 Units -

	1943	1944	% Change
Distillers	603	719	+ 19
Wineries	162	197	+ 22
Drugs	43	47	+ 10
Airplane Parts	81	59	- 28
Food Products	262	191	- 27
Chemicals	12	16	+ 33
Toilet Preparations	Minor	6	
Miscellaneous	5	5	
Total	1,168	1,240	+ 6

*Including exports

Our competitive position in sales to distillers is estimated at 74% of the total business and at 60% in the wine industry.

Sales of caps to airplane manufacturers for temporary closures of tubing, etc. to prevent entrance of foreign bodies during plane assembly decreased, due to decline in the number of planes constructed and some competitive activity with re-usable seals of aluminum and plastics. Our competitive position is estimated at 68% of the total.

Sales to food products practically vanished by December 1944, due to the availability of metal enclosures which were temporarily replaced by a combination of cardboard tops and bands.

Cellulose Sponges

Sales of our cellulose sponges decreased from the previous year by approximately 1% in terms of pounds, but increased 19% in terms of dollars. This was due to decreased sales to the Government at special prices. War business was 35% of dollar sales as compared with 40% for 1943.

	Estimated Sales As Percent of Industry				Estimated 1944 Sales	
	1943		1944			
	$	Lbs.	$	Lbs.	Dollars -000-	Pounds -000-
Du Pont	21	58	23	53	1,182	336
Natural Sponges	79	42	77	47	3,939	294
Total (000)	4,296	588	5,121	630		

Natural sponge sales were at record level, up 19% from 1943. Prices remained about constant as the result of ceilings established in 1943. However, hurricanes and blights reduced the production toward the end of 1944. This and the lack of imports have made natural sponges extremely scarce:

	1940	1944	Change
	Lbs.	Lbs.	
Natural Sponges(1)	751,000	295,000	- 61%
Cellulose Sponges(2)	90,000	336,000	+ 273%

(1) Production and imports
(2) Sales

EXPORTS

* * *

Cellophane exports declined as the result of restriction on production and increased military demand. Our 1943 cellophane exports included approximately 1,000,000 pounds for Lend-Lease to Australia and India as compared with 136,000 pounds for Lend-Lease to India in 1944.

* * *

-000 Pounds-

		Industry	Du Pont	Du Pont as % of Industry(1)
Cellophane Film	1943	6,294*	5,664	90.0*
	1944	3,758*	3,382	90.0*
	Change	- 40%	- 40%	

(1) Including du Pont *Estimated

GOV T EXHIBIT NO. 87
Civil Action 1216

X-684

EXTRACT FROM MINUTES OF EXECUTIVE COMMITTEE MEETING of 1969

MARCH SEVENTEENTH, 1946.

E. I. DU PONT DE NEMOURS & COMPANY

RAYON DEPARTMENT ANNUAL COMPETITIVE REPORT FOR 1945, dated March 11, 1946 (#6975), was presented from B. M. May, General Manager, and after discussion of certain matters referred to therein, the report was ordered filed.

RETURN TO EXECUTIVE [redacted] ROOM 9069

C-8733

March 11, 1946

TO: EXECUTIVE COMMITTEE

FROM: RAYON DEPARTMENT

ANNUAL COMPETITIVE REPORT - 1945
(Extracts pertaining to regenerated cellulose products)

* * *

DOMESTIC SHIPMENTS

* * *

Cellophane - Viscose Film

Shipments and Share of Business
000,000 Pounds

	1941		1944		1945	
	Pounds	%	Pounds	%	Pounds	%
Du Pont	101	79	94	77	96	77
Sylvania	27	21	28	23	29	23
Industry	128		122		125	

As the result of restrictive war measures, the industry had reached a low of 111,000,000 pounds in 1942. While there was substantial recovery of production volume in subsequent years, the increase in demand for war uses further limited civilian supply. During 1944 war applications and lend-lease took 36% of the annual output. By May, 1945, war uses required over half of the monthly shipments. Cessation of the military demand after V-J Day permitted increased allocations to established customers but we are still unable to fill the current demand. The situation is somewhat mitigated by the shortage of essential materials such as sugar, fats and oils which have tempered the demand for cellophane by the producers of candy and baked goods.

Realization of post-war plans for the expanding use of cellophane in established fields and for new uses will depend on increased capacity. Our present forecast which may be modified depending on the availability of construction materials, visualizes the following sales volume for the next three years:

1946	112,000,000 pounds
1947	150,000,000 "
1948	185,000,000 "

* * *

"Cel-O-Seal" Caps and Bands

Du Pont's domestic shipments of "Cel-O-Seal" caps and bands for 1945 totaled 1,216,000,000 units, an increase

343342

of 9% over 1944. Du Pont enjoyed 75% of the market with the balance going to Celon and Sylvania. As in previous years, distillers and wineries were the principal purchasers.

The demand for "Cel-O-Seal" bands is very strong and we expect to increase our capacity during the current year. The cap business dropped to less than 1,000,000 units per month as compared with war-time shipments of about 5,000,000 units per month due to the sharp decline of a special application as a temporary seal on airplanes under construction. Current prospects do not look favorable.

Cellulose Sponges

Since the beginning of the war the sales of natural and du Pont's cellulose sponges have averaged about 600,000 pounds per year with cellulose sponges consistently accounting for somewhat more than half of the volume. With imports of natural sponges from abroad cut off and nearby sources suffering blights and storms, the price of natural sponge has steadily increased. Volume and value of the two products compared as follows for the past two years:

Sponges	Year	Volume 000 Pounds	% Change	Value Dollars	% Change
Du Pont	1945	325	- 3.3	1,164	-1.6
	1944	336		1,182	
Natural	1945	242	-17.7	4,323	+9.7
	1944	294		3,939	

During the war only a minor percentage of output was available to civilian users. The current demand for cellulose sponges is appreciably in excess of supply and our current plans include increased capacity.

* * *

Exports

Exports of the principal products of the Rayon Department, including shipments to Canada for 1944 and 1945 were as follows:

		000 Pounds		
		Industry (1)	Du Pont	% Du Pont
Cellophane Film	1945	3,617(2)	3,255	90
	1944	3,758(2)	3,382	90
	% Change	- 4	- 4	

(1) Including du Pont

(2) Estimated

* * *

The demand for cellophane in the export market is very strong and we distribute film to export on about the same basis as to domestic customers. European competition has started in small volume, principally from Great Britain and Sweden. A second competitive cellophane plant is being constructed in Brazil and is expected to be in operation by the end of 1946, with an estimated annual capacity of about 3,000,000 pounds.

* * *

GOV T EXHIBIT NO. 88
Civil Action 1216

March 10, 1947

TO: EXECUTIVE COMMITTEE

FROM: RAYON DEPARTMENT

ANNUAL COMPETITIVE REPORT - 1946

* * *

II. CELLOPHANE

Viscose Film

Shipments and Share of Business
- 000,000 Pounds -

	1941 Pounds	%	1945 Pounds	%	1946 Pounds	%	1946 as % of 1945
du Pont	101	79	96	77	106	75	110
Sylvania	27	21	29	23	35	25	121
Industry	128		125		141		

Cellophane production was curtailed during the war as the result of Government action to preserve manpower and raw materials. In 1942 the industry reached a low of 111,000,000 pounds with du Pont participating to the extent of 83,000,000 pounds or 74%. In subsequent years the industry regained much of what it lost as the result of vigorous demonstration of the war utility of cellophane. During the war our cellophane capacity was reduced by the eight machine unit at Yorkes which was converted to tire yarn and is likely to continue on that product. Subsequent increases were the result of augmented productivity of the remaining facilities. Not until 1946 was the pre-war record of 1941 exceeded.

The demand for cellophane is substantially in excess of capacity and we expect this to continue despite our forecast to produce 156,000,000 pounds during 1947 and despite indicated plans for expansion by the Sylvania Division of the American Viscose Corporation.

C14 (Sut.)

Currently Sylvania is the only other domestic producer of viscose film. They were able to improve their relative position in the trade during 1946 due to more rapid increase of production.

Non-cellulosic films partly stimulated by special war applications and now greatly encouraged by the severe undersupply of cellophane have recently shown an increased rate of activity. They include Goodyear's Pliofilm, a pre-war product temporarily delayed by the lack of natural rubber, Goodyear's Vitafilm (vinyl), polythene film by Visking and several other producers, Firestone's Velofilm (vinyl) and Reynolds Metals aluminum foil and others.

Generally speaking, the price of these new films limits them to special uses including fabric replacement in shower curtains, tablecloths and other non-packaging utilization. Pliofilm selling for around 85 to 95 cents per pound, about double the price of cellophane, is making some headway in produce, meat and poultry packaging largely due to the lack of cellophane. We estimate current Pliofilm production at about 150,000 pounds per month.

Polythene film is used in frozen food locker bags, household utility bags, etc. The Plastics Department estimates total polythene film production by all producers at 5,000,000 pounds for 1946.

Aluminum foil containers are being used in the frozen food field, the wrapping of butter, etc. Reynolds is very actively promoting a laminate of aluminum foil and glassine for cigarette packages.

The packaging field is still broadly a domain of cellophane to the extent that the industry is capable of supplying the demand. The war-time shortage of cellophane has amply demonstrated the utility of the product beyond mere sales appeal. Substantial new uses, including the packaging of fresh vegetables, fresh meats, and bread, are awaiting the availability of additional cellophane.

The development of waste-free unit packages of vegetables, meats and other commodities for self-service has stimulated the demand for engineered transparent packaging materials beyond any even recent expectations. The largest potential for cellophane now appears to lie in the food industry which requires very large quantities of film at much lower costs than any of the non-cellulosic films are likely to achieve, in the foreseeable future anyway.

* * *

Cellulose Bands and Caps

Domestic Shipments and Share of Business
- 000,000 Units -

	1945 Units	%	1946 Units	%	1946 as % of 1945
du Pont	1,216	73	1,490	70	123
Celon	418	25	563	26	135
Sylvania	36	2	82	4	228
Total	1,670		2,135		128

Our facilities were operating at capacity throughout 1945 and 1946. Our inability to supply the demand forced some business to competition. We expect to increase our output somewhat during 1947 through increase of casting speeds. The forecast calls for production of 1,666,000,000 units during the current year. Real relief is not in sight until after the Yerkes modernization which provides for a band capacity of 2,500,000,000 annual units.

The cap business is now a very minor percentage of the total and we will discontinue the manufacture of cellulose caps altogether by spring.

Distillers and wineries continue to be our principal band customers with 1,340,000,000 units or 90% having gone to them during 1946.

Cellulose Sponges

Sales and Share of Business
- 000 Pounds -

	1941 Pounds	%	1945 Pounds	%	1946 Pounds	%
du Pont	227	36	325	57	341	47
Natural sponges	397	64	242	43	378	53
Total	624		567		719	

The demand for sponges is far in excess of capacity. During 1946 large quantities of natural sponges were imported from Libya and Tunisia. In addition, quantities of cellulose sponges were brought in from Sweden selling freely at prices better than 25% above du Pont's. There is at least one domestic manufacturer expecting to produce sponges at the monthly rate of about 3,500,000 cubic inches or about 15% of du Pont's capacity by spring, 1947.

We operated our facilities at peak during 1945 and 1946. The increase in output was due to marginal improvements of operating efficiency. Modernization of the Marcus Hook location will approximately double and eventually triple our present sponge capacity.

* * *

IV. EXPORTS

Exports of the principal products of the Rayon Department, including shipments to Canada, for 1945 and 1946 are compared with the industry's exports on the following page.

- 000 Pounds -

		Industry(1)	du Pont	% du Pont
Cellophane Film	1946	5,103(2)	4,503	88
	1945	3,575(2)	3,225	90
	% Change	+43	+40	

(1) Including du Pont
(2) Estimated

* * *

Cellophane exports were mostly to Central and South America. Despite a substantially larger allocation of cellophane to export, we are far from supplying the demand abroad. Reports indicate that British exports of transparent wrapping during the first eight months of 1946 amounted to 7,000,000 pounds which is about four times their exports for the entire year of 1939. British prices are from 10 to 25% above ours. Small quantities of British cellophane were brought into the U. S. in 1946.

E. M. May
GENERAL MANAGER

Folio 6581-6583 omitted
Folio 6584 follows
CARRY

GOV T EXHIBIT NO. 109
~~Civil Action 1216~~

E. I. DU PONT DE NEMOURS & COMPANY

CELLOPHANE DIVISION

Wilmington, Delaware
November 15, 1945

MR. H. J. WHITE, ASS'T. MGR.
RAYON DEPARTMENT

MR. J. S. DENHAM, ASS'T. MGR.
RAYON DEPARTMENT

PROPOSED CELLOPHANE EXPANSION

Some time ago Mr. Brown presented our revised sales forecast for the second year postwar with a total poundage of 169,000,000 pounds. To provide for this volume we present the following program.

Our present capacity is rated at 104,000,000 pounds, and we have projects authorized and construction started to provide 28,000,000 additional pounds at Clinton, and 3,800,000 pounds at Spruance. This will give us a total of 136,000,000 pounds.

Until recently our standard speed of casting for moistureproof film was 60 meters. Our more modern machines at Clinton and Spruance have been run at 75 meters and experimentally we have cast film at speeds as high as 100 meters. Physical tests indicate that at 100 meters there is deterioration in some desirable qualities. We do consider it safe to operate at a speed of 87.5 meters for moistureproof film and believe that as a result of further study we ultimately can successfully make film on our modern machines at a speed of 100 meters.

The Engineering Section of our Technical Division has surveyed Clinton, Spruance and Old Hickory and have given us a preliminary estimate of the money required to permit 87.5 meter casting speed at those three locations. This totals $7,600,000 for which we will increase our capacity by approximately 29,000,000 pounds or $.2603 per annual pound. We probably should add about $150,000 to the above figure because we expect to present a project for a new office building at Old Hickory. However, this project will be presented whether the above mentioned expansion materializes or not.

Should this program be followed, we would have a total capacity of about 165,000,000 pounds against Mr. Brown's forecast of 169,000,000, but as stated above we believe that we can before too long develop the proper technique to carry our casting speeds up to 100 meters.

C-5512-A

We attach hereto a tabulation showing our present capacity, the approved expansion program and our proposed further expansion, with details showing our present permanent investment and our ultimate permanent investment, together with our working capital and figures developing the picture on the investment per annual pound. It should be noted that today our permanent investment is $.3086 and our working capital $.0744, making a total of $.3830. At the completion of our proposed program our total investment figure is estimated to be slightly below 36¢.

In the past we have frequently discussed the desirability of further reducing the selling price of Cellophane. Reducing, or holding our present investment per annual pound will be quite helpful in this respect.

You will notice that in the above study we have not considered the Yerkes Cellophane plant because it seems best to await the completion of the broad location study that is being made by the Engineering Department. Long range sales forecasts indicate that if additional production can readily be gotten from that location that the sales outlets will be ample to take care of it.

If you gentlemen desire it we would be glad to discuss this program with you further but would appreciate your comment because we believe it quite desirable to determine in so far as we can what our future plan should be.

T. L. Hines

T. L. Hines

C-5512-B

RAYON DEPARTMENT - CELLOPHANE DIVISION

	CAPACITY			Capacity Added By Proposed Expansion (87.5 MPM)	Grand Total
	Present	Approved Expansion	Total		
PRODUCTION					
Clinton	20,000,000	28,000,000	48,000,000	7,500,000	55,500,000
Spruance	36,500,000	3,800,000	40,300,000	8,900,000	49,200,000
Old Hickory	34,200,000		34,200,000	12,800,000	47,000,000
Yerkes	14,000,000		14,000,000		14,000,000
Total	104,700,000	31,800,000	136,500,000	29,200,000	165,700,000
INVESTMENT					
Permanent					
Clinton	7,241,879	6,822,910	14,064,789	1,150,000	15,214,789
Spruance	10,376,071	234,693	10,610,764	2,500,000	13,110,764
Old Hickory	9,119,221		9,119,221	3,950,000	13,069,221
Yerkes	5,571,722		5,571,722		5,571,722
Total	$32,308,893	$7,057,603	$39,366,496	$7,600,000	$46,966,496
Working Capital					
Clinton	1,596,632	1,839,600	3,436,232	492,750	3,928,982
Spruance	2,347,521	250,000	2,597,521	585,620	3,183,141
Old Hickory	2,442,630		2,442,630	840,960	3,283,590
Yerkes	1,405,735		1,405,735		1,405,735
Total	$7,792,518	$2,089,600	$9,882,118	$1,919,330	$11,801,448
Total					
Clinton	8,838,511	8,662,510	17,501,021	1,642,750	19,143,771
Spruance	12,723,592	484,693	13,208,285	3,085,620	16,293,905
Old Hickory	11,561,851		11,561,851	4,790,960	16,352,811
Yerkes	6,977,457		6,977,457		6,977,457
Total	$40,101,411	$9,147,203	$49,248,614	$9,519,330	$58,767,944
PER ANNUAL POUND					
Clin. - Permanent	.3621	.2437	.2930	.1533	.2741
Working Capital	.0798	.0657	.0716	.0657	.0708
Total	.4419	.3094	.3646	.2190	.3449
Spr. - Permanent	.2843	.0618	.2633	.2808	.2665
Working Capital	.0643	.0658	.0644	.0658	.0647
Total	.3486	.1276	.3277	.3466	.3312
O. H. - Permanent	.2666		.2666	.3085	.2780
Working Capital	.0714	----	.0714	.0657	.0699
Total	.3380		.3380	.3742	.3479
Yerkes- Permanent	.3980		.3980		.3980
Working Capital	.1004	----	.1004	----	.1004
Total	.4984		.4984		.4984
Total - Permanent	.3086	.2219	.2884	.2603	.2834
Working Capital	.0744	.0657	.0724	.0657	.0713
Total	.3830	.2876	.3608	.3260	.3547

Prepared by Planning Section
November 14, 1945

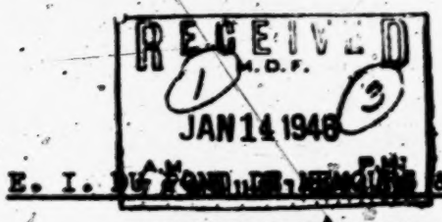
C-5512-C

Folio 6586-6590 omitted
Folio 6591 follows

CARRY

Wilmington, Delaware
January 11, 1946

GOV'T EXHIBIT NO. 114
Civil Action 1216



E. I. DU PONT DE NEMOURS & COMPANY

RAYON DEPARTMENT

TO: EXECUTIVE COMMITTEE

FROM: RAYON DEPARTMENT

PROJECT NO. 394 - PART 4 - $1,150,000
INCREASED PLANT CAPACITY - CLINTON CELLOPHANE

PART I	Authorized September 8, 1943	$ 145,000
PART II	Authorized April 6, 1945	6,955,000
PART III	Authorized Reduction December 17,1945	-380,000
PART IV	Requested	1,150,000
	Total	$7,870,000

Since your authorization of Part II of the above project, we have demonstrated that our casting machines can be operated at higher speeds, and we are herewith submitting Part IV of this project to increase the production capacity at the Clinton location by 7,900,000 pounds annually.

When Part II of the above project was presented, our sales forecast was for 140,000,000 pounds annually in the third postwar year. More recent surveys indicate that we could sell this volume in 1946 if the production capacity were available.

The capacity of all our present plants, including construction already authorized in projects 394 and 395, is approximately 136,000,000 pounds. This project upon authorization and completion will increase this total capacity to approximately 144,000,000 pounds.

We propose to later submit an additional part of project 395 to further increase the capacity of our Spruance Plant by a corresponding increase in speed of casting. This is estimated to give us an additional 14,000,000 pounds annually, which will bring our total annual capacity to approximately 158,000,000 pounds, against our sales forecast of 165,000,000 pounds for the year 1947.

To provide the indicated further increase in production facilities, the Engineering Department is estimating the capital expenditures and the increased volume that would result from higher speed casting at our Old Hickory location, which should provide another 15,000,000 pounds annually. If these plans look attractive from an investment viewpoint, we should then have available in 1947 a capacity slightly in excess of 172,000,000 pounds.

Plans for further expansion will be delayed until the Engineering study that is now being made of the Yerkes plant at Buffalo is completed.

C-8657-B

		Estimated Production Capacity	* Production Available For Sale	Sales Forecast
Present production capacity	104,000M			
Projects 394-2 and 395 as now authorized	31,800M			
Project 394-4 attached (All to be completed in 1946)	7,900M	143,700M	118,000M (1946)	140,000M
Projects to be submitted: Increased speed Sprunce (To be completed in 1946)	14,100M	157,800M		
Project under consideration: Increased speed Old Hickory	15,000M	172,800M	168,000M (1947)	165,000M

* New capacity not available for full year.

The Engineering Department is now making a study of the entire Yerkes Works at Buffalo, New York. Upon the completion of that study it is probable it will show that additional poundage can be secured at that location at an attractive figure, and this would put us in a position to meet the sales requirements for the year 1948.

Permanent Investment

Permanent Investment in Cellophane - 6/30/45	$ 32,309,000
Investment per annual pound at Capacity Operation	.310
Permanent Investment of Approved Expansion Projects 394 Parts 1-3 and 395	6,690,000
Investment per annual pound Projects 394 Parts 1-3 and 395	.215
Permanent Investment this Project 394-4	1,069,000
Investment per annual pound Project 394-4	.135
Permanent Investment after completion Projects 394 Parts 1-4 and 395	40,068,000
Investment per annual pound after completion Projects 394 Parts 1-4 and 395	.278

8657-B

Earnings on the attached project have been computed on the expenditures for this project plus working capital without any allocation of existing investment. The sale of 90% of the installed capacity is assumed. All costs and selling prices are at current levels after making allowances for known changes not yet effective.

T. L. HINES
DIVISION MANAGER

APPROVED:

B. [illegible] Hoy
GENERAL MANAGER
RAYON DEPARTMENT

8657-B

Folio 6594 - 6598 omitted
6599 follows CARRY

GOV'T EXHIBIT NO. 125
Civil Action 1216

EXECUTIVE COMMITTEE
EXHIBIT NO. 1893

E.I. DU PONT DE NEMOURS & COMPANY

RAYON DEPARTMENT

RECEIVED
M.D.F.
SEP3-1943
A.M. 7 8 9 10 11 12 1 2 3 4 5 6 P.M.

Wilmington, Del.
September 1, 1943

TO: EXECUTIVE COMMITTEE

FROM: RAYON DEPARTMENT

APPROPRIATION REQUEST - $145,000 - CLINTON
PROJECT NO. 394, "INCREASED CELLOPHANE CAPACITY"

We submit for authorization the above project covering design work required to increase the Clinton Plant by eight casting machines to produce an additional 20,000,000 annual pounds of cellophane.

This project is one of three companion projects covering design work for postwar cellophane expansion. The other two projects are:

No. 395 - $50,000: Design work for 5,000,000 pounds additional capacity at Spruance through adjustment and elimination of bottlenecks by increases in casting machine and coating tower speeds. Authorization of this project is within departmental limits.

No. 396 - $70,000: Design for 3,000,000 pounds additional capacity at Old Hickory through increase in viscose capacity and higher speeds on casting machines and coating towers. This project is to be submitted to one member of the Executive Committee for authorization.

Our present production capacity, including one unit at Buffalo, is approximately 100,000,000 pounds per year. At present we are selling at this rate. At the end of the war we expect to recover that portion of our normal business which was temporarily diverted to war uses, including Lend-Lease, as a result of war-time exigencies.

For the first postwar year we forecast a volume of at least 110,000,000 pounds with probable increases of 10,000,000 pounds per year for several years, based largely on increased volume in the baking industry, including bread, and in frozen and dehydrated foods. This projected rate of growth is conservatively in line with past experience. During the ten years preceding governmental war-time restrictions, our cellophane business increased at a compounded annual rate of 15.4%.

To insure increasing sales to these markets, we contemplate successive reductions in the price of cellophane as added capacity is available. At the end of the third postwar year we expect to sell moistureproof cellophane at 36¢ and P.T. at 33¢, or an average of 35.3¢ per pound, against 1943 actual prices of 40.5¢ for moistureproof and 36¢ for P.T., or an average of 40¢ per pound.

C-8457-N

RETURN TO EXECUTIVE COMMITTEE ROOM

The proposed new investment affects our individual plants as follows:

1. Spruance Plant:	Present Investment	$10,640,000
	Investment per annual pound	31.8¢
	Estimated cost of proposed project	965,000
	Investment per new annual pound	19.3¢
	Overall Investment when project is completed - per annual pound	30.1¢
2. Old Hickory Plant:		
	Present Investment	$9,322,000
	Investment per annual pound	29.8¢
	Estimated cost of proposed project	1,220,000
	Investment per new annual pound	40.7¢
	Overall Investment when project is completed - per annual pound	30.7¢

The considerably higher investment per new annual pound for Old Hickory is due to an increase in the proportion of moisture-proof production and the age of the machines as compared with Spruance.

Just prior to the war both of these projects were approved but later cancelled, due to war conditions. Very small amounts have been spent against both of them.

3. Clinton Plant:	(Some small amount of this was also spent against a preliminary design project before the war.)	
	Present Investment	$7,124,000
	Investment per annual pound	36.1¢
	Estimated cost of proposed project	7,160,000
	Investment per new annual pound	35.8¢
	Overall Investment when project is completed - per annual pound	36¢

Clinton is our lowest operating cost plant and probably will continue to be.

8657-N

As of June 30, 1943 the total permanent investment in cellophane, including the Buffalo unit, was $36,400,000. On the basis of 100,000,000 pounds total capacity, this calculates a permanent investment of 36.4¢ per annual pound. With the addition of the three projects discussed, the total permanent investment will approximate $45,700,000, which on a basis of total annual capacity of 128,000,000 will figure 35.7¢ per annual pound.

Sales for 1943, at the rate of 100,000,000 pounds per year with total investment in excess of $43,000,000, are currently showing an operative return of 34.5%. This will probably be increased to 35% by the end of the year.

The proposed program contemplates the additional capacity being constructed over the first two postwar years and making such total increase available in the third postwar year, bringing the estimated total investment, including working capital, to $55,000,000, and providing for production of 128,000,000 pounds annually, with an estimated operative return of 29.5%.

During the first and second postwar years when only a part of this investment is completed, only a part of the added production available, and only part of the total price cut in effect, the anticipated operative return in each of those years will be in excess of 31%.

J. E. Hatt
DIVISION MANAGER

APPROVED: L A Yerkes
L A Yerkes

GENERAL MANAGER
RAYON DEPARTMENT

8657-M

Folio 6602 omitted
Folio 6603 follows

CARRY

Sheets, Bands, and Strips of Transparent Cellulose Film Exceeding One Inch in Width, but not Exceeding 3/1000 inch in thickness, Made from Cellulose, Except Cellulose Acetate. (Tariff Paragraph 31(c).)1/
United States Imports for Consumption, 1934 - 1949.

Quantity in Pounds

Year	Total Imports for Consumption	Country of Invoice Basis, 1934-1936, Country of Origin Basis, 1937-1949										
		France	Germany	Italy	Netherlands	United Kingdom	Canada	Japan	Sweden	Switzerland	Ceylon	Cuba
1934	32,117	1,128	12	33	1,045	12	47	29,840	--	--	--	--
1935	270,842	15	60	--	255	48	--	270,200	264	--	--	--
1936	194,077	176	287	--	630	--	31	192,727	--	226	--	--
1937	148,831	432	143	--	487	--	120	147,390	50	161	48	--
1938	46,099	122	--	--	310	344	165	45,158	--	--	--	--
1939	71,451	51	10	--	963	--	15	70,412	--	--	--	--
1940	21,938	10	--	--	145	52	438	21,293	--	--	--	--
1941	36,339	--	--	--	--	--	253	36,072	--	--	--	14
1942	62	--	--	--	--	--	27	35	--	--	--	--
1943	5	--	--	--	--	--	--	--	--	5	--	--
1944	76	--	--	--	--	--	76	--	--	--	--	--
1945	222	--	--	--	--	222	--	--	--	--	--	--
1946	11,978	1	--	--	--	9,774	2,203	--	--	--	--	--
1947	7,141	192	--	--	--	4,470	2,479	--	--	--	--	--
1948	518	68	423	--	--	6	17	--	--	4	--	--
1949 (Jan.-Nov.)	9,205	--	1,105	4	--	--	690	7,380	20	6	--	--

1/ Source: "Foreign Commerce and Navigation of the United States," Foreign Trade Division, Bureau of Census, U. S. Department of Commerce.

3226
Foio 6604-6605 omitted CARRY
Folio 6606 follows
O-61
GOV'T EXHIBIT NO. 182
Civil Action 1216

GOVT EXHIBIT 187
CIVIL ACTION #1216

A Complete Packaging Service

Package Development Service—A packaging consultative service to assist manufacturers in arriving at the most practical and effective use of Cellophane. This includes advice regarding the relative advantages of sheet wrapping, proper type of Cellophane and adhesive to use, also data on bags, envelopes, window boxes, etc., of Cellophane.

Technical Testing Service—Making available to interested manufacturers the results of laboratory experiments regarding the protective properties of Cellophane. Hundreds of experiments are on file covering a wide range of products.

Machine Wrapping Service—This department maintains, for the benefit of our customers, one of the most complete records extant of wrapping machines for Cellophane, their speed, cost, etc.

Field representatives skilled in merchandising, packaging and production problems will cooperate in working out your particular problems

Properties of "Cellophane" Cellulose Film

"Cellophane" is 100 per cent transparent, strong, flexible, grease- and oil-proof, dust- and air-proof, hygienic.

Moistureproof "Cellophane" possesses all these virtues and is also unusually resistant to moisture vapor. Moistureproof "Cellophane" may also be procured in the heat sealing type.

Underwriters Laboratories classification "same inflammability as newsprint."

DU PONT CELLOPHANE CO., INC.

General Sales and Executive Offices
EMPIRE STATE BUILDING, NEW YORK, N. Y.

New York Sales Office
350 Fifth Avenue
NEW YORK, N. Y.

Branch Sales Office
140 Federal Street
BOSTON, MASS.

Eastern District
1616 Walnut Street
PHILADELPHIA, PA.

Central District
111 W. Washington Street
CHICAGO, ILL.

Western District
351 California Street
SAN FRANCISCO, CALIF.

Resident Sales Representatives in

ALBANY, N. Y.
ATLANTA, GA.
BALTIMORE, MD.
BUFFALO, N. Y.
CHARLOTTE, N. C.
CINCINNATI, OHIO
CLEVELAND, OHIO
DALLAS, TEXAS
DETROIT, MICH.
INDIANAPOLIS, IND.
KANSAS CITY, MO.
LOS ANGELES, CALIF.
MILWAUKEE, WIS.
MINNEAPOLIS, MINN.
NASHVILLE, TENN.
PITTSBURGH, PA.
READING, PA.
SPRINGFIELD, MASS.
ST. LOUIS, MO.
YORK, PA.

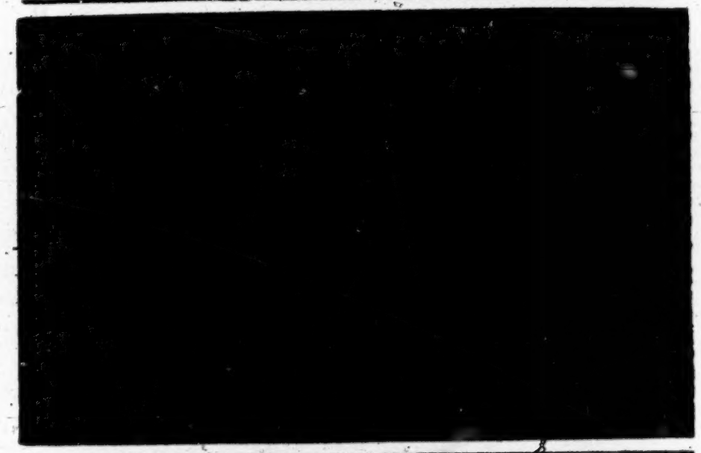
Plants
BUFFALO, N. Y. OLD HICKORY, TENN. RICHMOND, VA.

Warehouses
*CHICAGO, ILL. *NEW YORK, N. Y.
*A slight additional charge applies to warehouse shipments.

RESTRICTIONS

"Cellophane" and/or "Du Pont Cellophane" are the registered trade-marks of Du Pont Cellophane Company, Inc.

"Cellophane" and/or "Du Pont Cellophane" is sold subject to the express license restriction to which the purchaser agrees, by the acceptance thereof, that no purchaser shall resell it, either in the delivered sizes or cut to smaller sizes except under the registered trade-marks "Cellophane" and/or "Du Pont Cellophane."



Effective December 16, 1935

MADE ONLY BY

DU PONT

Du Pont Cellophane Company, Inc.

Empire State Bldg. New York, N. Y.

10140-A

3227

524

Prices Apply Only to Minimum Quantities and Types of "Cellophane" Cellulose Film So Designated for Single Shipment at One Time

CUT-TO-SIZE SHEETS

Type of "Cellophane" Cellulose Film	Quantity in Sq. In.	Price per 1,000 Square Inches
No. 300 Plain Transparent	7,000,000 and up	.019
	2,000,000 to 7,000,000	.024
	*600,000 to 2,000,000	.026
No. 300 Moistureproof Transparent	7,000,000 and up	.028
	2,000,000 to 7,000,000	.031
	*600,000 to 2,000,000	.033
No. 300 Plain Colors (*Including the following standard colors: Light Blue, Dark Blue, Amber, Tango, Pink, Red, Violet, Light Green, Dark Green*)	7,000,000 and up	.025
	2,000,000 to 7,000,000	.028
	*600,000 to 2,000,000	.037
No. 300 Plain Embossed (*Standard embossing in linen or silk design only on Plain Transparent Sheets*)	7,000,000 and up	.03
	2,000,000 to 7,000,000	.035
	*600,000 to 2,000,000	.045
No. 450 Plain Transparent	6,000,000 and up	.033
	1,500,000 to 6,000,000	.038
	*600,000 to 1,500,000	.043
No. 600 Plain Transparent	4,000,000 and up	.055
	1,000,000 to 4,000,000	.06
	*300,000 to 1,000,000	.065

Sheets are cut and packed in multiples as follows:

(Excepting especially large or small sheets)

Nos. 300 and 450—1,000 sheets

No. 600—500 sheets

COMBINED PRICES

Various sizes of cut-to-size sheets of the same type and thickness may be combined to obtain quantity price based on the total area of the material involved. Various colors, listed at the same prices, may be combined if ordered in multiples of 1,000 sheets of each color.

RESTRICTIONS

See Restrictions on other side.

STOCK SIZE SHEETS

Type of "Cellophane" Cellulose Film	Quantity Sheets	Price per 1,000 Square Inches
No. 300 Plain Transparent Approximately 40" wide and 40" long	6,000 and up	.017
	*500	.021
No. 300 Moistureproof Transparent Approximately 40" wide and 40" long	6,000 and up	.025
	*500	.03
No. 300 Plain Colors Approximately 40" wide and 40" long	6,000 and up	.022
	*500	.027
No. 300 Plain Embossed Approximately 40" wide and 40" long	6,000 and up	.025
	*500	.033
No. 450 Plain Transparent Approximately 40" wide and 40" long	5,000 and up	.028
	*500	.033
No. 600 Plain Transparent Approximately 40" wide and 40" long	3,000 and up	.048
	*250	.054

Sheets packed in multiples of the minimum quantities listed in column above

STOCK SIZE DIMENSIONS

Stock size sheets are always 40" long but the width may vary depending on mill production. If a definite width is specified, but not available, the nearest size in stock will be shipped.

CONDITIONS

Prices shown are F.O.B. our plants. A special schedule applies on shipments from warehouses. All prices subject to change without notice. Orders already prepared, not subject to cancellation, alteration or deferment of shipment.

TERMS

2% 10 days, net 30 days from date of invoice. All bills payable at the Treasurer's Office, Station B, Buffalo, New York.

ROLLS

Type of "Cellophane" Cellulose Film	Base Price per Pound: 500 lbs. or over	Base Price per Pound: *100 lbs. to 500 lbs.
No. 300 Plain Transparent	.35	.42
No. 300 Moistureproof Transparent	.46	.53
No. 300 Plain Standard Colors	.42	.50
No. 450 Plain Transparent	.40	.48
No. 600 Plain Transparent	.50	.58

All rolls slit to order in 1/16" multiples; widths from 1 1/2" to 43" wide for No. 300, 1 1/2" to 39" for No. 450, 1 1/2" to 38" for No. 600, on standard core 3" inside diameter. Standard outside diameter approximately 8", yielding 2 lbs. of Cellophane per inch of width. On widths under 1 1/2" add 10 cents a pound. The minimum width on which orders can be accepted is 1/2".

AREA FACTORS AND THICKNESS

Type of "Cellophane" Cellulose Film	Approximate Thickness	Approximate Sq. In. Yield per Lb.
No. 300 Plain Transparent and Plain Colors	.00088"	21,500
No. 300 Moistureproof Transparent	.0010	19,500
No. 450 Plain Transparent	.0012	15,500
No. 600 Plain Transparent	.0017	11,500

EXAMPLES FOR FIGURING PRICES

To determine cost of 10,000 sheets No. 300 Plain Transparent "Cellophane" Cellulose Film cut to size 10" x 25":

1. Sheet area = 10" x 25" = 250 sq. in.
2. Total area = 250 x 10,000 = 2,500,000 sq. in.
3. Price per M sq. in. Since over 2,000,000 but less than 7,000,000, price applying is $.021.
4. Price per M sheets = 250 x .021 x 1,000 = $5.25.
5. Total price for 10,000 sheets = $5.25 x 10 = $52.50 plus transportation charges.

To determine the quantity of sheets size 10" x 12" No. 300 Plain Transparent to order to obtain a price of $.019 per thousand sq. in.

Divide 7,000,000 sq. in. by 120 sq. in. (area of sheet 10" x 12") = **58,333 sheets.

**As multiples of 1,000 sheets only are cut, the quantity to order would be 59,000 sheets.

**Prices on smaller quantities or on special types of "Cellophane" Cellulose Film supplied on request. A slight additional charge applies on warehouse shipments.*

Taxes which are or may be imposed upon the sale or production of our products shall be for the account of the buyer

AT-10140

GOV'T EXHIBIT NO. 188...
Civil Action 1216

A Complete Packaging Service

Package Development Service A packaging consultative service to assist manufacturers in arriving at the most practical and effective use of Cellophane. This includes advice regarding the relative advantages of sheet wrapping, proper type of Cellophane and adhesive to use, also data on bags, envelopes, window boxes, etc., of Cellophane.

Technical Testing Service Making available to interested manufacturers the results of laboratory experiments regarding the protective properties of Cellophane. Hundreds of experiments are on file covering a wide range of products.

Machine Wrapping Service This department maintains, for the benefit of all our customers, one of the most complete records extant of wrapping machines for Cellophane, their speed, cost, etc.

Field representatives skilled in merchandising, packaging and production problems will cooperate in working out your particular problems

Properties of "Cellophane" Cellulose Film

"Cellophane" is 100 per cent transparent, strong, flexible, grease- and oil-proof, dust- and air-proof, hygienic.

Moistureproof "Cellophane" possesses all these virtues and is also unusually resistant to moisture vapor. Moistureproof "Cellophane" may also be procured in the heat sealing type.

Underwriters Laboratories classification "same inflammability as newsprint."

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
"CELLOPHANE" DIVISION
NEMOURS BLDG. WILMINGTON, DEL.

New York District
350 Fifth Avenue
NEW YORK, N. Y.

Eastern District
1616 Walnut Street
PHILADELPHIA, PA.

Branch Sales Office
140 Federal Street
BOSTON, MASS.

Central District
111 W. Washington Street
CHICAGO, ILL.

Western District
351 California Street
SAN FRANCISCO, CALIF.

Resident Sales Representatives in

ALBANY, N. Y.	KANSAS CITY, MO.
ATLANTA, GA.	LOS ANGELES, CALIF.
BALTIMORE, MD.	MILWAUKEE, WIS.
BUFFALO, N. Y.	MINNEAPOLIS, MINN.
CHARLOTTE, N. C.	NASHVILLE, TENN.
CINCINNATI, OHIO	PITTSBURGH, PA.
CLEVELAND, OHIO	READING, PA.
DALLAS, TEXAS	SPRINGFIELD, MASS.
DETROIT, MICH.	ST. LOUIS, MO.
INDIANAPOLIS, IND.	YORK, PA.

Plants
BUFFALO, N. Y. OLD HICKORY, TENN.
RICHMOND, VA.

Warehouses
*CHICAGO, ILL. *NEW YORK, N. Y.

*A slight additional charge applies to warehouse shipments.

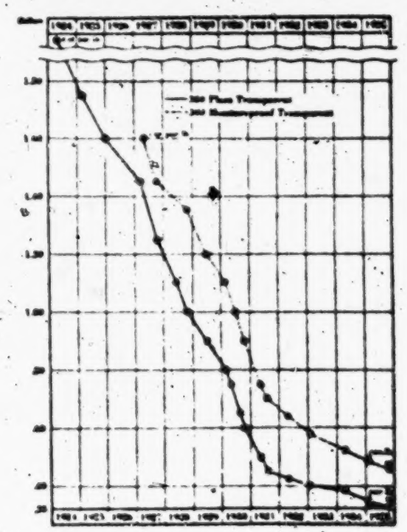
RESTRICTIONS

"Cellophane" and/or "Du Pont Cellophane" is sold subject to the express license restriction to which the purchaser agrees, by the acceptance thereof, that no purchaser shall resell it, either in the delivered sizes or cut to smaller sizes except under the registered trade-marks "Cellophane" and/or "Du Pont Cellophane."

PRICE LIST

Cellophane

Effective May 1, 1937



18 Price Reductions

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
"CELLOPHANE" DIVISION
NEMOURS BLDG. DU PONT WILMINGTON, DEL.

10139-A

3229

526

Prices Apply Only to Minimum Quantities and Types of "Cellophane" Cellulose Film So Designated for Single Shipment at One Time

CUT-TO-SIZE SHEETS

Type of "Cellophane" Cellulose Film	Quantity in Sq. In.	Price per 1,000 Square Inches
No. 300 Plain Transparent	7,000,000 and up	.019
	2,000,000 to 7,000,000	.021
	*600,000 to 2,000,000	.026
No. 300 Moistureproof Transparent	7,000,000 and up	.028
	2,000,000 to 7,000,000	.031
	*600,000 to 2,000,000	.038
No. 300 Plain Colors (*Amber, Tango, Pink, Red, Orchid, Light Blue*)	7,000,000 and up	.027
	2,000,000 to 7,000,000	.03
	*600,000 to 2,000,000	.04
(*Dark Blue, Light Green, Dark Green, Violet, Brown, Black*)	7,000,000 and up	.029
	2,000,000 to 7,000,000	.032
	*600,000 to 2,000,000	.042
No. 300 Plain Embossed (*Standard embossing in linen or silk design only on Plain Transparent Sheets*)	7,000,000 and up	.03
	2,000,000 to 7,000,000	.035
	*600,000 to 2,000,000	.045
No. 450 Plain Transparent	6,000,000 and up	.033
	1,500,000 to 6,000,000	.038
	*600,000 to 1,500,000	.049
No. 600 Plain Transparent	4,000,000 and up	.055
	1,000,000 to 4,000,000	.06
	*300,000 to 1,000,000	.065

Sheets are cut and packed in multiples as follows:

(Excepting especially large or small sheets)
Nos. 300 and 450—1,000 sheets
No. 600—500 sheets

COMBINED PRICES—Various sizes of cut-to-size sheets of the same type and thickness may be combined to obtain quantity price based on the total area of the material involved. Various colors, as listed at their respective prices, may be combined if ordered in multiples of 1,000 sheets of each color.

RESTRICTIONS—See Restrictions on other side.

STOCK SIZE SHEETS

Type of "Cellophane" Cellulose Film	Quantity Sheets	Price per 1,000 Square Inches
No. 300 Plain Transparent Approximately 40" wide and 40" long	6,000 and up	.017
	*500	.021
No. 300 Moistureproof Transparent Approximately 40" wide and 40" long	6,000 and up	.025
	*500	.03
No. 300 Plain Colors Approximately 40" wide and 40" long (*Amber, Tango, Pink, Red, Orchid, Light Blue*)	6,000 and up	.021
	*500	.03
(*Dark Blue, Light Green, Dark Green, Violet, Brown, Black*)	6,000 and up	.029
	*500	.042
No. 300 Plain Embossed Approximately 40" wide and 40" long	6,000 and up	.025
	*500	.033
No. 450 Plain Transparent Approximately 40" wide and 40" long	5,000 and up	.028
	*500	.033
No. 600 Plain Transparent Approximately 40" wide and 40" long	3,000 and up	.043
	*250	.051

Sheets packed in multiples of the minimum quantities listed in column above

STOCK SIZE DIMENSIONS Stock size sheets are always 40" long but the width may vary depending on mill production. If a definite width is specified, but not available, the nearest size in stock will be shipped.

CONDITIONS Prices shown are F.O.B. our plants. A special schedule applies on shipments from warehouses. All prices subject to change without notice. Orders already prepared, not subject to cancellation, alteration or deferment of shipment.

TERMS—2% 10 days, net 30 days from date of invoice. All bills payable at the Treasurer's Office, Wilmington, Delaware.

ROLLS

Type of "Cellophane" Cellulose Film	[illegible]	[illegible]
No. 300 Plain Transparent	[illegible]	[illegible]
No. 300 Moistureproof Transparent	10	[illegible]
No. 300 Plain Standard Colors (*Amber, Tango, Pink, Red, Orchid, Light Blue*)	10	[illegible]
(Dark Blue, Light Green, Dark Green, Violet, Brown, Black	50	[illegible]
No. 150 Plain Transparent	10	[illegible]
No. 600 Plain Transparent	50	[illegible]

All roll-slit to order in [illegible] multiples width shown [illegible] to 13 wide for No. 300, [illegible] to 50 for No. 150, [illegible] to 5 for No. 600, on standard core [illegible] and outside diameter approximately [illegible] of Cellophane per inch of width. On widths [illegible] add 10 cents a pound. The minimum weight on which orders can be accepted is [illegible].

AREA FACTORS AND THICKNESS

Type of "Cellophane" Cellulose Film	[illegible]	[illegible]
No. 300 Plain Transparent and Plain Colors	.00021	21,500
No. 300 Moisture-proof Transparent	.00030	19,500
No. 150 Plain Transparent	.00012	15,000
*No. 600 Plain Transparent	.00017	11,500

EXAMPLES FOR FIGURING PRICES To determine cost of 10,000 sheets No. 300 Plain Transparent "Cellophane" Cellulose Film cut to size 10" x 25":

1. Sheet area: 10" x 25" = 250 sq. in.
2. Total area: 250 x 10,000 = 2,500,000 sq. in.
3. Price per M sq. in. Since over 2,000,000 but less than 7,000,000, price applying is $.021
4. Price per M sheets: 250 x .021 x 1,000 = $5.25
5. Total price for 10,000 sheets: $5.25 x 10 = $52.50 plus transportation charges.

To determine the quantity of sheets size 10" x 12" No. 300 Plain Transparent to order to obtain a price of $.040 per thousand sq. in.

Divide 7,000,000 sq. in. by 120 sq. in. (area of sheet 10" x 12") = **58,333 sheets.

**As multiples of 1,000 sheets only are cut, the quantity to order would be 59,000 sheets.

Prices on smaller quantities or on special types of "Cellophane" Cellulose Film supplied on request. A slight additional charge applies on warehouse shipments

Taxes which are or may be imposed upon the sale or production of our products shall be for the account of the buyer

A.T.-101 39

3230

527

531/A

A Complete Packaging Service

FIELD REPRESENTATIVES: Skilled in merchandising, packaging and production problems will cooperate in working out your particular problems.

PACKAGE DEVELOPMENT SERVICE: A packaging consultative service to assist manufacturers in arriving at the most practical and effective use of "Cellophane." This includes advice regarding the relative merits of hand and machine wrapping, proper type of "Cellophane" and adhesive to use, also data on bags, envelopes, window boxes, etc.

TECHNICAL TESTING SERVICE: Making available to interested manufacturers the results of experience regarding the protective properties of "Cellophane."

MACHINE WRAPPING SERVICE: This department maintains, for the benefit of all our customers, one of the most complete records extant of wrapping machines for "Cellophane," their speed, cost, etc.

Properties of "Cellophane" Cellulose Film

"Cellophane" is 100 per cent transparent, strong, flexible, grease- and oil-proof, dust- and air-proof, hygienic. Moistureproof "Cellophane" possesses all these virtues and is also unusually resistant to moisture vapor. Moistureproof "Cellophane" may be procured in two types —M.T. for sealing with adhesives and M.S.T. for heat sealing. Underwriters Laboratories classification "same inflammability as newsprint."

Address Inquiries to

E. I. DU PONT DE NEMOURS & CO., INC.

"CELLOPHANE" DIVISION

NEMOURS BUILDING, WILMINGTON, DELAWARE

NEW YORK DISTRICT OFFICE
350 Fifth Avenue, New York, N. Y.

Branch Sales Office
140 Federal Street, Boston, Mass.

EASTERN DISTRICT OFFICE
1616 Walnut Street, Philadelphia, Pa.

CENTRAL DISTRICT OFFICE
111 W. Washington Street, Chicago, Ill.

WESTERN DISTRICT OFFICE
351 California Street, San Francisco, Calif.

RESIDENT SALES REPRESENTATIVES IN

Albany, N. Y.	Kansas City, Mo.
Atlanta, Ga.	Los Angeles, Calif.
Baltimore, Md.	Milwaukee, Wis.
Buffalo, N. Y.	Minneapolis, Minn.
Charlotte, N. C.	Nashville, Tenn.
Cincinnati, Ohio	Pittsburgh, Pa.
Cleveland, Ohio	Reading, Pa.
Dallas, Texas	Springfield, Mass.
Detroit, Mich.	St. Louis, Mo.
Indianapolis, Ind.	York, Pa.

PLANTS

Buffalo, N. Y. — Old Hickory, Tenn. — Richmond, Va.

WAREHOUSE FACILITIES

*Chicago, Ill. — *New York, N. Y.

*A slight additional charge applies to warehouse shipments.

RESTRICTIONS

"Cellophane" and/or "Du Pont Cellophane" is sold subject to the express license restriction to which the purchaser agrees, by the acceptance thereof, that no purchaser shall resell it, either in the delivered sizes or cut to smaller sizes except under the registered trade-marks "Cellophane" and/or "Du Pont Cellophane."

A-9264A

PRINTED IN U. S. A.

PRICE LIST

Cellophane

LOOK FOR THIS RED AND BLUE LABEL ON ALL CONTAINERS

Effective December 5, 1938

19 PRICE REDUCTIONS since domestic manufacture began in 1924. The price of P. T. "Cellophane" in 1924 was $2.65 per pound—today it is .34 per pound or less than 13% of the original price.

MADE ONLY BY

DU PONT

E. I. DU PONT DE NEMOURS & CO., INC.

"CELLOPHANE" DIVISION

WILMINGTON, DELAWARE

EXHIBIT NO. 190-A
Civil Action 1216

CUT-TO-SIZE SHEETS

Type of "Cellophane" Cellulose Film	Quantity in Sq. In.	Price per 1,000 Square Inches
No. 300 Plain Transparent	7,000,000 and up	.019
	2,000,000 to 7,000,000	.021
	*600,000 to 2,000,000	.026
No. 300 Moistureproof Transparent (*Two Types — See below*)	7,000,000 and up	.027
	2,000,000 to 7,000,000	.030
	*600,000 to 2,000,000	.037
No. 300 Plain Colors (*Amber, Tango, Pink, Red, Orchid, Light Blue*)	7,000,000 and up	.027
	2,000,000 to 7,000,000	.03
	*600,000 to 2,000,000	.04
(*Dark Blue, Light Green, Dark Green, Violet*)	7,000,000 and up	.029
	2,000,000 to 7,000,000	.032
	*600,000 to 2,000,000	.042
No. 300 Plain Embossed (*Standard embossing is linen or silk design only on Plain Transparent Sheets*)	7,000,000 and up	.03
	2,000,000 to 7,000,000	.035
	*600,000 to 2,000,000	.045
No. 450 Plain Transparent	6,000,000 and up	.033
	1,500,000 to 6,000,000	.038
	*600,000 to 1,500,000	.043
No. 600 Plain Transparent	4,000,000 and up	.055
	1,000,000 to 4,000,000	.06
	*300,000 to 1,000,000	.065

Packed in multiples as follows:

Nos. 300 and 450—1,000 sheets No. 600—500 sheets

COMBINED PRICES: Various sizes of cut-to-size sheets of the same type and thickness may be combined to obtain quantity price based on the total area of the material involved. Various colors, as listed at their respective prices, may be combined if ordered in multiples of 1,000 sheets of each color.

MOISTUREPROOF "CELLOPHANE" TYPES: There are two types—M.T. for use with adhesives and M.S.T. for heat sealing. Please specify which type desired.

STOCK SIZE SHEETS

Type of "Cellophane" Cellulose Film	Quantity Sheets	Price per 1,000 Square Inches
No. 300 Plain Transparent Approximately 40" to 41" wide and 40" long	6,000 and up	.017
	*500	.021
No. 300 Moistureproof Transparent Approximately 40" to 41" wide and 40" long (*Two Types — See below*)	6,000 and up	.024
	*500	.029
No. 300 Plain Colors Approximately 40" to 41" wide and 40" long (*Amber, Tango, Pink, Red, Orchid, Light Blue*)	6,000 and up	.024
	*500	.03
(*Dark Blue, Light Green, Dark Green, Violet*)	6,000 and up	.026
	*500	.032
No. 300 Plain Embossed Approximately 40" wide and 40" long	6,000 and up	.025
	*500	.033
No. 450 Plain Transparent Approximately 40" wide and 40" long	5,000 and up	.028
	*500	.033
No. 600 Plain Transparent Approximately 40" wide and 40" long	3,000 and up	.048
	*250	.054

** Sheets packed in multiples of the minimum quantities listed in column above*

STOCK SIZE DIMENSIONS: The width may vary depending on mill production. If a definite width is specified, but not available, the nearest size in stock will be shipped.

CONDITIONS: Prices shown are F.O.B. our plants and apply only to minimum quantities and types of "Cellophane" Cellulose Film designated for single shipment to one point. Orders already prepared are not subject to cancellation, alteration or deferment of shipment. All prices subject to change without notice.

TERMS—2% 10 days, net 30 days from date of invoice. All bills payable at the Treasurer's Office, Wilmington, Delaware.

ROLLS

Type of "Cellophane" Cellulose Film	Base Price per Pound	
	500 lbs. or over	100 lbs. to 500 lbs.
No. 300 Plain Transparent	.34	.41
No. 300 Moistureproof Transp. (*Two Types — See below*)	.44	.51
No. 300 Plain Standard Colors (*Amber, Tango, Pink, Red, Orchid, Light Blue*)	.46	.54
(*Dark Blue, Light Green, Dark Green, Violet*)	.50	.58
No. 450 Plain Transparent	.39	.47
No. 450 Moistureproof Transp.	.50	.60
No. 600 Plain Transparent	.47	.55

All rolls slit to order in ¼" multiples; widths from 1½" to 43" wide for No. 300, 1½" to 39" for No. 450, 1½" to 38" for No. 600, on standard core 3" inside diameter. Standard outside diameter approximately 8", yielding 2 lbs. of "Cellophane" per inch of width. On widths under 1½" add 10 cents a pound. The minimum width on which orders can be accepted is ½".

AREA FACTORS AND THICKNESS

Type of "Cellophane" Cellulose Film	Approximate Thickness	Approximate Sq. In. Yield per Lb.
No. 300 Plain Transparent and Plain Colors	.00088"	21,500
No. 300 Moistureproof Transp.	.0010	19,500
No. 450 Plain Transparent	.0012	15,500
No. 450 Moistureproof Transp.	.0014	14,000
No. 600 Plain Transparent	.0017	11,500

FIGURING PRICES: To determine cost of 10,000 sheets No. 300 Plain Transparent "Cellophane" Cellulose Film cut to size 10" x 25":

1. Sheet area = 10" x 25" = 250 sq. in.
2. Total area = 250 x 10,000 = 2,500,000 sq. in.
3. Price per m. sq. in. Since over 2,000,000 but less than 7,000,000 price applying is $.021 per thousand.
4. Square inch area in thousands = 2,500,000 ÷ 1,000 = 2,500.
5. Total price = 2,500 x .021 = $52.50 plus transportation charges.

Prices on smaller quantities or on special types of "Cellophane" Cellulose Film supplied on request

GOV'T EXHIBIT NO. 191
Civil Action 1216

A Complete Packaging Service

FIELD REPRESENTATIVES: Skilled in merchandising, packaging and production problems will cooperate in working out your particular problems.

PACKAGE DEVELOPMENT SERVICE: A packaging consultative service to assist manufacturers in arriving at the most practical and effective use of "Cellophane." This includes advice regarding the relative merits of hand and machine wrapping, proper type of "Cellophane" and adhesive to use, also data on bags, envelopes, window boxes, etc.

TECHNICAL TESTING SERVICE: Making available to interested manufacturers the results of experience regarding the protective properties of "Cellophane."

MACHINE WRAPPING SERVICE: This department maintains, for the benefit of all our customers, one of the most complete records extant of wrapping machines for "Cellophane," their speed, cost, etc.

Properties of "Cellophane" Cellulose Film

"Cellophane" is 100 per cent transparent, strong, flexible, grease- and oil-proof, dust- and air-proof, hygienic. Moistureproof "Cellophane" possesses all these virtues and is also unusually resistant to moisture vapor. Moistureproof "Cellophane" may be procured in two types —M.T. for sealing with adhesives and M.S.T. for heat sealing. Underwriters' Laboratories classification "same inflammability as newsprint."

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Cincinnati, Ohio	Pittsburgh, Pa.
Cleveland, Ohio	Reading, Pa.
Dallas, Texas	Springfield, Mass.
Detroit, Mich.	St. Louis, Mo.
Indianapolis, Ind.	York, Pa.

PLANTS
Buffalo, N. Y. Old Hickory, Tenn.
Richmond, Va.

WAREHOUSE FACILITIES
*Chicago, Ill. *New York, N. Y.
*A slight additional charge applies to warehouse shipments.

RESTRICTIONS

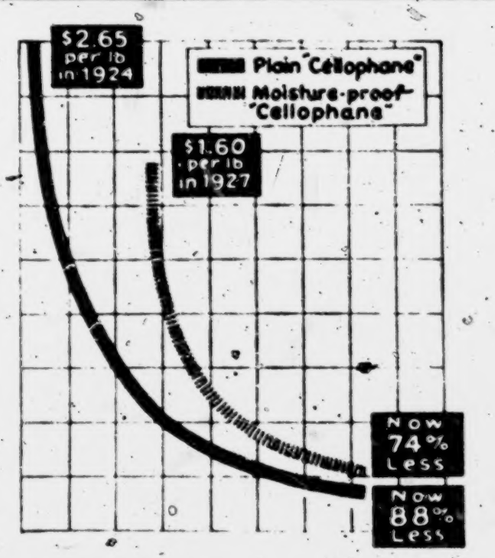
"Cellophane" is sold subject to the express restriction to which the purchaser agrees, by the acceptance thereof, that no purchaser shall resell it, either in the delivered sizes or cut to smaller sizes except under the registered trade-mark "Cellophane."

PRICE LIST

Cellophane

Look for This Red and Blue Label—It Identifies the du Pont Film

Effective October 30, 1939



E. I. DU PONT DE NEMOURS & CO. (INC.)
"CELLOPHANE" DIVISION
WILMINGTON, DELAWARE

DUPONT

10137-A

CUT-TO-SIZE SHEETS

Type of "Cellophane" Cellulose Film	Quantity in Sq. In.	Price per 1,000 Square Inches
No. 300 Plain Transparent	7,000,000 and up	.018
	2,000,000 to 7,000,000	.02
	*600,000 to 2,000,000	.025
No. 300 Moistureproof Transparent (Two Types—See below)	7,000,000 and up	.025
	2,000,000 to 7,000,000	.028
	*600,000 to 2,000,000	.035
No. 300 Plain Colors—Amber, Tango, Pink, Red, Orchid, Light Blue	7,000,000 and up	.026
	2,000,000 to 7,000,000	.029
	*600,000 to 2,000,000	.036
Dark Blue, Light Green, Dark Green, Violet	7,000,000 and up	.028
	2,000,000 to 7,000,000	.031
	*600,000 to 2,000,000	.039
No. 450 Plain Transparent	6,000,000 and up	.032
	1,500,000 to 6,000,000	.036
	*600,000 to 1,500,000	.045
No. 600 Plain Transparent	1,000,000 and up	.054
	1,000,000 to 1,000,000	.06
	*300,000 to 1,000,000	.076

Packed in multiples as follows

Nos. 300 and 450—1,000 sheets. No. 600—500 sheets

COMBINED PRICES: Various sizes of cut-to-size sheets of the same type and thickness may be combined to obtain quantity price based on the total area of the material involved. Various colors, as listed at their respective prices, may be combined if ordered in multiples of 1,000 sheets of each color.

MOISTUREPROOF "CELLOPHANE" TYPES: There are two types—M.P. for use with adhesives and M.S.T. for heat sealing. Please specify which type desired.

STOCK SIZE SHEETS

Type of "Cellophane" Cellulose Film	Quantity Sheets	Price per 1,000 Square Inches
No. 300 Plain Transparent Approximately 30" to 43" wide and 40" long	6,000 and up	.016
	*500	.02
No. 300 Moistureproof Transparent Approximately 30" to 43" wide and 40" long (Two Types—See below)	6,000 and up	.022
	*500	.028
No. 300 Plain Colors Approximately 30" to 43" wide and 40" long—Amber, Tango, Pink, Red, Orchid, Light Blue	6,000 and up	.023
	*500	.029
Dark Blue, Light Green, Dark Green, Violet	6,000 and up	.025
	*500	.031
No. 450 Plain Transparent Approximately 30" wide and 40" long	5,000 and up	.027
	*500	.034
No. 600 Plain Transparent Approximately 30" wide and 40" long	3,000 and up	.036
	*250	.053

Sheets packed in multiples of the minimum quantities listed in column above

STOCK SIZE DIMENSIONS: The width may vary depending on mill production. If a definite width is specified, but not available, the nearest size in stock will be shipped.

CONDITIONS: Prices shown are F.O.B. our plants and apply only to minimum quantities and types of "Cellophane" Cellulose Film designated for single shipment to one point. Orders already prepared are not subject to cancellation, alteration or deferment of shipment. All prices subject to change without notice.

TERMS: 2%, 10 days, net 30 days from date of invoice. All bills payable at the Treasurer's Office, Wilmington, Delaware.

ROLLS

Type of "Cellophane" Cellulose Film	Base Price per Pound 500 lbs. or over	Base Price per Pound *300 lbs. to 500 lbs.
No. 300 Plain Transparent	.33	.49
No. 300 Moistureproof Transp. (Two Types—See below)	.41	.49
No. 300 Plain Standard Colors—Amber, Tango, Pink, Red, Orchid, Light Blue	.45	.54
Dark Blue, Lightstreen, Dark Green, Violet	.49	.59
No. 450 Plain Transparent	.38	.49
No. 450 Moistureproof Transp.	.46	.55
No. 600 Plain Transparent	.45	.54

All rolls slit to order in 1/8" multiples, widths from 1 1/2" to 43" wide for No. 300, 1 1/2" to 39" for No. 450, 11 1/2" to 38" for No. 600, on standard core 3" inside diameter. Standard outside diameter approximately 8", yielding 2 lbs. of "Cellophane" per inch of width. On widths under 11 1/2" add 10 cents a pound. The minimum width on which orders can be accepted is 1".

AREA FACTORS AND THICKNESS

Type of "Cellophane" Cellulose Film	Approximate Thickness	Approximate Sq. In. Yield per Lb.
No. 300 Plain Transparent and Plain Colors	.00035"	21,500
No. 300 Moistureproof Transp.	.0004	19,500
No. 450 Plain Transparent	.0042	15,500
No. 450 Moistureproof Transp.	.0044	14,000
No. 600 Plain Transparent	.0047	11,500

FIGURING PRICES: To determine cost of 40,000 sheets No. 300 Plain Transparent "Cellophane" Cellulose Film cut to size 10" x 25":

1. Sheet area 10" x 25" = 250 sq. in.
2. Total area 250 x 40,000 = 2,500,000 sq. in.
3. Price per M sq. in. Since over 2,000,000 but less than 7,000,000 price applying is $.02 per thousand.
4. Square inches ÷ 1,000 = 2,500,000 ÷ 1,000 = 2,500.
5. Total price 2,500 x .02 = $50.00 plus transportation charges.

Prices on smaller quantities or on special types of "Cellophane" Cellulose Film supplied on request

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Note:

Certain of these pages are almost illegible, but have been reproduced here, so that the reader might have some idea of what they are.

Govt Exhibit No. 347
Civil Action 1216

DU PONT CELLOPHANE COMPANY, INC.

New York City

December 31st, 1929.

TO THE EXECUTIVE COMMITTEE

FROM THE CELLOPHANE DEPARTMENT

PRICE STUDY

There is submitted herewith, charts showing the detail of the study of the Cellophane price situation, submitted for your information and comment as to the continuation of our present policy on prices, which has been to continuously reduce prices as the volume and market conditions seem to warrant such action.

Anticipating that it will probably be desirable early in 1930 to consider a further revision downward of the price level, there is submitted herewith, for your consideration three schedules showing various revisions of the present prices, with the thought that the Committee may want to express its feeling as to the amount of the decline, after having informed themselves as to the effect of such proposed decline, on the net return and the possible volume.

We should like to point out that inasmuch as Cellophane is sold largely by an area of 1,000 square inches, in both cut-to-size and stock size sheets, it is desirable to confine the price revision, if possible, to fractions not smaller than 1/4¢ per unit because it seems inadvisable to have prices terminating in a fraction any smaller than 1/4¢ as quoted to a prospective customer. This makes the spread in percentage of decline of considerable scope at times, considering varying of these schedules as submitted herewith.

There is a further point. In the next price revision, the differential between cut-to-size and stock size sheets, per 1,000 square inches, which at present is 3/4¢, should be brought closer together. This differential has maintained for sometime, and when originally put in the price list, represented approximately a 10% differential. The continued reductions

in price per unit now leaves this differential at approximately 18% over the stock size sheet price.

This, we regard as inadvisable because of the purchase of large quantities of cut size by certain trade, and while it will probably be unsatisfactory to the jobbers, nevertheless, it seems the desirable thing to do, and will, accordingly be recommended in the next price revision.

With this explanation, we believe the charts are self-explanatory.

CHART "A" is a schedule of the present prices in case lots by units and pounds and shows the average prices received during 1929 for both Regular and Moistureproof, and by each of the various forms in which sold. It also shows an estimated average price to be received per pound, under each of the schedules 1, 2 and 3 submitted for consideration. These estimates are based on maintaining the same proportion of sales of different items as the 1929 proportion.

SCHEDULE I shows a price decline of 1/4¢ on Regular stock size, 1/2¢ on Regular cut size to adjust the differential referred to above, and 5¢ per pound on roll stock, together with a 1/2¢ per unit cut on Moistureproof stock size and cut size, each, and 10¢ per pound on Moistureproof rolls. This is the minimum price reduction and figures 7.03% of the present case lot selling price, and slightly less than this on the total average price received.

SCHEDULE II shows a price decline based on 1/2¢ on Regular stock size, 3/4¢ on cut size Regular and 10¢ per pound on Regular roll stock, together with the 1/2¢ each on stock and cut size Moistureproof and 10¢ per pound on Moistureproof rolls, as referred to under Schedule I. This represents an average decline from the present case lot price of 11.16% , and the decline will be slightly less than this amount on the average price received.

Possibly the principal objection to this schedule will be the fact that the decline on Moistureproof is not greater in cents per unit than on regular, and correspondingly less in percentage on account of the higher price of Moistureproof.

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DUPONT CELLOPHANE

DU PONT CELLOPHANE COMPANY, INC.

2 PARK AVENUE
NEW YORK CITY

SCHEDULE III represents a study showing proposed decline on Regular the same as on Schedule II, and with the Moistureproof decline increased to 3/4¢ per unit on cut size and stock size and 15¢ per pound on Moistureproof rolls. This represents a proposed decline of 12.10% on the case lot price, or slightly less than this on the average price received, and is submitted as the maximum decline considered desirable or necessary at the present time.

CHART "B" attached, shows the year to date net per pound before the decline of August 1st., last. It shows also, the net return per pound for the 11 months to the end of November, and the net return per pound for the 4 months' period alone since the August 1st decline. It will be noted that the net returns for the four months since the August decline are but slightly lower than the year to date figure, or the seven months to date figure, prior to the price decline. This is particularly noticeable in Moistureproof. To this chart has been added, price reductions shown in Schedules 1, 2 and 3, to show the effect of such price declines against these nets, and estimates are attached hereto, showing the estimated net per pound under the e revised schedules without allowing for any increase in volume as a result of such proposed price decline.

If such decline results in an increased volume, the net return per pound will undoubtedly be materially increased over the estimated figures given herein.

There is attached to this chart also, tabulation showing the total tonnage of new business which such declines will have to produce to yield the same net return in 1930 at these lower levels as was returned in 1929. These figures likewise are based on the same proportion of volume between different kinds and grades as existed in 1929, and as Moistureproof is now running a larger percentage than for the year to date 1929, the proportion will be somewhat changed, and on account of the higher return of the increased proportion of Moistureproof, there will probably be required a materially less volume of new business to bring about a return equal to the 1929 results.

In this connection, it should be pointed out that the net return for the year to date in 1929 will undoubtedly exceed 45% of the gross receipts. This figure, to be compared with a net of 42.4% in 1928 and 38.8% in 1927, of the gross receipts.

Also, attention is called to the fact that the net return in 1928 was 51.3¢ per pound on all sales. In 1929, it will be

in excess of 48¢ per pound, notwithstanding the November 30, 1928 price cut and the August 1, 1929 price cut - the former of which exercised practically no effect on the return in 1928 but amounted to a full reduction in price on all the 1929 volume.

CHART "C" is also attached showing the effect of price declines on sales volume against similar periods of other years. Prior to 1927, prices were set in the first month of the year, without change thruout the year, so that the first mid-year price change came in August of 1927, and the declines since are discussed in Chart "C".

The reasons for consideration of proposed price revision at this time are largely the attempt to open up new and large markets on possible units of lower priced commodities and also, the present and prospective competitive situation, not only as regards other manufacturers of a material similar to Cellophane, but also including the recent improvements in Glassine. The details covering these two situations are perhaps, too extensive to attempt to discuss here but I believe are thoroughly understood by the Executive Committee members and should have full consideration.

With the introduction of our next price revision, we propose to revise our agreement contract now offered to buyers of large quantities of Cellophane, to increase the total volume of purchase necessary to secure the present percentages of rebate and also to reduce the top figure of the present rebate agreement to 5%.

It will, perhaps, be desirable to advise the Committee further in person regarding this and if the Committee so desires, this will be done.

There is also the Moisturoproof situation and its effect on our future activities and in the consideration of this by the Committee, we should like an opportunity to explain further, in person, our ideas regarding this for their comment.

From this, we hope to have from the Committee a rather definite expression as to the amount and extent of price revision as it develops. There has been some feeling in the past, apparently, that further changes might have been made than have been accomplished and this feature, we should like an opportunity to discuss in person with the Committee.

J. E. HATT, GENERAL MANAGER

GOV'T EXHIBIT NO. 355
Civil Action 1216

August 30, 1938.

MR. L.A.YERKES:

MR. R.W. MAY:

"CELLOPHANE" PRICES

Anticipating the possibility of further reducing "Cellophane" prices to the trade as we approach the year end and with the thought of stimulating increased volume in another year, we have been reviewing our whole price set-up to determine what changes, if any, would be required on account of the Legal Department decision in relation to the Robinson-Patman Act, and also as matters of policy in relation to converters and their effect upon important trade where printed or fabricated material is indicated.

We recently submitted to the Legal Department's Mr. .L. Abrams a detailed tabulation of our converters' purchases and the quantity discounts that they had earned together with the assembled facts prepared by our Planning Section as the actual savings in cost which we should show to justify price differentials between varying size units of these converters on their purchases.

Mr. Abrams takes the position that inasmuch as the purchase of transparent sheeting by the converters is really the purchase of an essential raw material, which they are re-selling after processing, that any variation in price to varied ones in this group must be justified, at least approximately by the actual difference in cost to us. Heretofore we have been accustomed when we designated a converter as such for our material, to sell them on a basis of our list price less a discount of 3% on the invoice. All converters get this discount. This is the quantity discount that applies in excess of $150,000 annually and less than $200,000. Where their purchases ran in excess of $200,000 per annum, they were given on the quantity agreement additional discounts beyond the 3% as the quantity may have justified in our regular quantity schedule. The 3%, however, was not duplicated. They

had to buy in excess of the amount required to get the 3% on the quantity schedule before any further discount was allowed and then only the difference between the 3% and the quantity discount earned was paid as an additional discount. The top figure in this converter bracket above the 3% has gone as high as 10% in our schedule, altho I believe the highest any converter has ever earned has been in the neighborhood of 8-1/2%, which gave them a 5-1/2 quantity discount beyond the regular converter's 3%.

We find, on examining the costs of handling the business of these varied converters, that this amount is somewhat excessive in relation to the amount that we can justify in actual cost savings made to ourselves. We can, however, justify a maximum additional discount in the largest of the converters approximating 3%. This being due to the volume of their orders, the regularity of them, and the relatively small cost of service and solicitation as compared with the smaller units.

We are thinking, therefore, definitely about making our converter schedule an original discount of 3% as it has been, plus a quantity schedule such as we now have up to a maximum of 6% instead of 10% as it has been in the past. This would make it possible for a converter to earn an added 3% on his purchases over and above the original converter's 3%, which will be allowed on his invoices. If we maintain the present quantity schedule, which we believe we should, in total dollars of purchases this would mean that the converter buying an annual quantity in excess of $750,000 would reach the total discount of 6% and this would represent the maximum quantity figure to be allowed.

Mr. Abrams says it is not necessary to make the converters' top discount identical with the users' discount because in the case of users the material is too small a part of the total cost of the article sold to represent substantial competition or discriminatory competition. However, we feel that our top discount to the converters, representing the minimum price for our material, should likewise be the top discount and the minimum price to important users of our goods. In the case of the cigarette companies, buying carload lots of one size material regularly, we can show a substantial saving over the similar quantity bought by smaller units in a number of orders of smaller quantity each.

To be consistent, however, we feel that the top discount and the minimum price should apply to the largest units trade whether converters or users.

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This will reduce the quantity discount from 10% to 6% and on a somewhat smaller volume, making the maximum volume perhaps three-quarters of a million dollars instead of going up to a million or beyond as we have been accustomed to do.

The purpose of this discussion is to set before you the proposed plan because in reducing the higher brackets of quantity discounts, as we are proposing here, we shall have to make a somewhat greater reduction in cents per pound from the list price in order not to penalize the large quantity users with a higher price per pound.

Mr. Abrams has also said that in the users' discounts we do not need to reduce these unless we so desire, but that in the converters' discounts the reduction in amount of discount will be definitely a step in the right direction and should be done. We feel, however, as indicated above, that if we do one we should do both in order to have a consistent sales policy and it is this feature on which we are making a discussion with the Management and their approval to a step in this direction.

We are not recommending this at the immediate present because the converters have already purchased a considerable quantity of their Fall material for Christmas trade and holiday use and it is now in process with them, and we think it would be unfair to reduce their market price by reducing our own schedule until we have crossed the peak of our volume, which will probably be in the next eight to ten weeks at the most.

If the Management finds this in order and the proper procedure we should probably recommend with it a reduction in the 500 pound price of P.T. material of 1¢ to 2¢ per pound. The possible 4% which we would deduct from the converters' discount in some cases on a basis of the present 35¢ per pound price figures 1.4¢ per pound, and to make a reduction to the largest of the converters would necessitate a 2¢ decline in P.T. material. There are certain of the items in P.T., such as some of the darker colors, where we should probably not reduce the price this much or perhaps at all, but for the regular plain transparent a 2¢ per pound reduction in list price with this change in quantity discounts would seem to be indicated if we are to make the new price lower on a net basis to converters than now exists.

In the case of moistureproof, we would probably recommend a reduction of 3¢ per pound from the list price of 68¢, because the possible 4% discount withdrawn from this larger trade represents 1.84¢ per pound and we should want to make some reduction below this figure to this trade. If this

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plan is followed it will make the 500 pound roll price of P.T. material 33¢ per pound and the moistureproof 500 pound roll price 43¢ per pound, each of them subject to a maximum discount to the largest trade of 6%.

The decline in net price to us will be of the order of 3/4¢ on P.T. material and 1-1/2¢ on moistureproof material below our present net. This moistureproof reduction may be as much as 1-3/4¢ per pound, it not being easily possible to figure this exactly without a full detailed analysis of the quantity agreements, of which there are a great many.

Based on an estimate of 70 million pounds for next year and on the basis of 18 million of P.T. and 52 million of M.T., would indicate a reduction in net of about one million dollars. If we are successful in getting the 70 million and provided we make our forecast for the rest of this year that would represent an increase of about 8 million pounds, at an average profit of around 12-1/2¢, which would give us our million dollars back. If this develops as calculated here the net, therefore, for another year would be in the neighborhood of eight million dollars against an investment total of approximately 32 million dollars in "Cellophane" alone, or at the rate of a 25% return before taxes and undistributed expense.

By the time we are ready to do this, say in December, it will have been almost three years since a major change has been made in "Cellophane" prices. The major portion of this time, particularly during 1936 and 1937, we were confronted with advancing labor costs and advancing material costs and there was good reason why a change was not in order. We have improved our efficiency of manufacture and the raw material costs have permitted some reduction this year over last in raw material cost totals, so that we are making costs today that are as good or some slightly better than we have ever made. We undoubtedly face somewhat higher commodity prices, but we believe that we can maintain this sort of cost unless on account of inflationary trends values of materials and labor again start a drastic upward trend.

We would be glad to discuss this in detail and make sure that we are all in agreement as to the policy to be followed and the benefits to be worked out from this action, if approved, and comments, suggestions, or constructive criticism will be appreciated.

It is the further thought that effective at about the same time that this is done that we will further reduce hand prices in our "Cel-O-Seal" Section, and the proposal here

would be to make an average reduction of 15 to 20¢ per thousand on the average size, principally liquor size bands, we now sell representing a decline of from 7-1/2 to a maximum of 10% in these items.

Our net on average units of bands as sold today approximates 70¢ per thousand on an average selling price of somewhat over $2.00, which seems to indicate a return of about 30% of the gross and the volume of turnover is in excess of the investment. We shall have to increase the investment somewhat we think, because of the seasonal nature of this business and during the next several months we shall be working on a proposal to provide for some additional capacity in bands, representing new equipment, and consequently a somewhat increased total investment in this unit. There seems to be ample promise of satisfactory profits to justify this additional installation and if we are successful in getting some of the lower priced markets that we have been working on this year to try to develop a program to sell some of the lower cost units, such equipment would be a natural necessity. Even on our standard line of bands it would be most desirable to have this equipment for a period of 3-4 months a year and with the trend toward a greater variety in colors in these items, we may be required to install it anyway.

This is intended to set forth the entire picture on prices and the proposed action in relation to price policy far enough ahead of actual installation to have thorough consideration from all of its angles. A discussion of this would be appreciated at your convenience.

For your information and detailed consideration of this "Cellophane" program, I am attaching herewith a tabulation showing the present quantity discounts and indicating that above the quantity providing for 6% such figures would be dropped hereafter.

J.E. HATT
DIVISION MANAGER

JEH:LMP
Att.

GOVT EXHIBIT NO. 372
Civil Action 1216

January 22, 1943

TO: EXECUTIVE COMMITTEE

FROM: RAYON DEPARTMENT

MONTHLY REPORT - DECEMBER, 1942
(Extracts pertaining to regenerated cellulose products)

* * *

OPERATIONS AND SALES

* * *

Cellophane

1942 cellophane sales of 87,500,000 pounds were about 17,300,000 pounds or 17% under 1941, but 7% over sales for 1940. Eleven million pounds of this decrease can be attributed to WPB Limitation Order L-20 and six million pounds to our voluntary decrease in film thickness to permit increased coverage per pound of film, i.e. conservation of raw materials. The effective coverage from 1942 production was, therefore, only 10% under that of 1941.

On January 1, 1943, the manufacture of twenty-eight small volume special colored films was discontinued to permit more effective use of materials and facilities for the production of more vitally needed standard films.

As anticipated, Limitation Order L-20 was amended on January 4, 1943. The amendment denies the use of cellophane for wrapping certain dry grocery items, as carton overwraps on a variety of materials and as milk bottle hoods. More importantly, it restricts use on bakery products, cigarettes and other tobacco products to 90% of the rate of consumption during specified periods of 1942. For the first time, an inventory restriction is included, limiting customers to forty-five days' supply based on current rate of consumption. The amendment also permits the use of cellophane as a metal replacement for certain uses. Unless new uses are developed or consumption in unrestricted categories expanded, this amendment will reduce 1943 volume by about 9,000,000 pounds.

Reduced allocation of glycerine will drastically curtail the production of plain cellophane (non-moistureproof) where substitution of glycerine by other softeners is not possible. Use of substitute softeners in moistureproof films will probably make it possible to maintain current rate of production of moistureproof film.

* * *

"Cel-O-Seal" Caps and Bands

Demand for caps for high priority uses continues to exceed capacity. Forecast sales of bands are reduced sharply in line with reduced bottling of whiskey and complete curtailment of new whiskey production.

GOV'T EXHIBIT NO. 1001...
Civil Action 1216

AGREEMENT

THIS AGREEMENT made and entered into this ninth (9) day of JUNE, A.D. 1923, by and between E. I. duPONT de NEMOURS & COMPANY, a corporation of the State of Delaware, party of the first part, and AMERICAN TRADE CORPORATION, a Delaware corporation, on its own behalf, and on behalf of the individuals and corporations with whom it is associated, including La Cellophane, Societe Anonyme, whose home office address is 16, Rue du Louvre, Paris, France, hereinafter referred to as Societe La Cellophane, party of the second part,

W I T N E S S E T H : THAT

WHEREAS the parties hereto, on the 6th day of January, A.D. 1923, entered into a certain agreement in writing providing for the study and investigation by the party of the first part of certain processes owned by the party of the second part and/or its associates, including Societe La Cellophane, and relating to the manufacture from viscose of certain product known as "Cellophane", with a view to the organization of a corporation in the United States for the purpose of manufacturing and selling said product in North and Central America, the said contract also providing for the subscription to the capital stock of said corporation by the parties hereto; and

WHEREAS the party of the first part has concluded its study and investigation, and has signified to the party of the second part its desire and intention to proceed with the organization of such a corporation upon terms and conditions differing in some respect from those set forth in the agreement of January 6, 1923, all of which terms and conditions are hereinafter set forth;

NOW, THEREFORE, the parties hereto have agreed, and by these presents do agree, with each other as follows:

(1) Immediately upon the execution of this agreement the parties hereto shall cause to be organized a corporation, the

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name of which shall be "DuPont Cellophane Company, Incorporated," which corporation shall be organized under the laws of the State of Delaware, and the capital stock of which shall consist of one hundred thousand (100,000) shares of voting, common stock without nominal or par value, and ten thousand (10,000) shares of eight per cent. (8%) cumulative non-voting preferred stock with a par value of One Hundred Dollars ($100). Said common stock shall have sole voting power, and said preferred stock shall be redeemable at any time pursuant to action of the Board of Directors of DuPont Cellophane Company, Inc. at One Hundred and Ten Dollars ($110) per share.

(2). Subsequent to the organization of said DuPont Cellophane Company, Inc. the party of the first part shall pay into the treasury of said Company as and when called for by the Board of Directors of DuPont Cellophane Company, Inc., the sum of Eight Hundred Sixty-Six Thousand, Six Hundred Sixty-six Dollars and Sixty-seven Cents ($866,666.67), in consideration of which payment there shall be issued to the party of the first part fifty-two thousand (52,000) shares of the no par value voting common stock of said Company; and the party of the second part shall pay into the treasury of said Company as and when called for by its Board of Directors the sum of One Hundred Thirty-three Thousand, Three Hundred Thirty-three Dollars and Thirty-three Cents ($133,333.33), and shall transfer, or cause to be transferred to said Company, all of its, and Societe La Cellophane's right, title and interest in and to any trademarks, patents, patent rights (including all pending patent and future applications), processes, data, knowledge, information, etc.

governing, affecting, or in any manner pertaining to the manufacture and/or sale of cellophane in North and Central America, in consideration of which payment and transfer there shall be issued to the party of the second part forty-eight thousand (48,000) shares of the no par value common stock of said company, ten thousand (10,000) shares of which shall be issued subject to the terms and conditions hereinafter set forth in paragraphs (6) and (7) hereof, it being understood and agreed that it shall be the obligation of the party of the second part under the section to counsel and assist DuPont Cellophane Company, Inc. in connection with any subsequent or additional applications for Letters Patent as and when the need for such subsequent or additional applications shall appear, and it is further understood and agreed that calls under this section shall be made against the parties hereto in the proportion of fifty-two sixtieths (52/60) of the amount required against the party of the first part, and eight-sixtieths (8/60) of the amount required against the party of the second part.

(3) Neither party to this agreement to whom the stock of said DuPont Cellophane Company, Inc. shall be issued, shall sell or dispose of, within a period of ten (10) years from the date hereof, all or any part of its or their holdings of the common stock of said DuPont Cellophane Company, Inc. without first offering to the other of said parties, in writing, the right to purchase or acquire such stock; provided, however, that this provision shall not prevent either of the parties hereto from selling, transferring or disposing of its or their holdings of such stock to any corporation owned or controlled by any of such parties, nor shall it prevent transfers between any of the original stockholders of DuPont Cellophane Company, Inc. 6 77

(4) As and when the capital needs of said Company require, as determined by the Board of Directors of DuPont Cello-

phane Company, Inc., the aforesaid eight per cent. (8%) cumulative non-voting preferred stock shall be issued to an amount not exceeding One Million Dollars ($1,000,000) par value, sixty-per cent. (60%) of which preferred stock shall be subscribed to and paid for at par, as and when such payments are called for by the Board of Directors of DuPont Cellophane Company, Inc. by the party of the first part, and forty per cent (40%) of said preferred stock shall be subscribed to and paid for similarly and coincidently by the party of the second part.

(5) It is understood and agreed that the party of the second part does not guarantee the validity of the patents pertaining to said processes to be transferred by the party of the second part to DuPont Cellophane Company, Inc., but the party of the second part hereby agrees to cooperate and assist, and cause its representatives and associates to cooperate and assist DuPont Cellophane Company, Inc., to the end that the highest possible degree of protection to said patent rights, trademarks, etc. shall be obtained throughout North and Central America.

(6) It is hereby understood and agreed between the parties hereto that pending the determination of the amount of patent protection enjoyed by DuPont Cellophane Company, Inc., as hereinafter set forth, the ten thousand (10,000) shares of voting common stock referred to in paragraph (2) hereof, and issued in the name of the party of the second part, shall be deposited with the party of the first part, and that the party of the second part shall file with DuPont Cellophane Company, Inc. a dividend order in accordance with which any cash dividends declared on said ten thousand (10,000) shares of common stock prior to its return by the party of the first part to the party of the second part, shall be directly payable in the proportion of fifty-two sixtieths (52/60) to the party of the first part, and eight-sixtieths (8/60)

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to the party of the second part." It is further agreed that in the event of any stock dividends being declared on said ten thousand (10,000) shares of common stock prior to its return by the party of the first part to the party of the second part, the party of the second part is hereby obligated to similarly deliver all stock so acquired by it as stock dividend on said ten thousand (10,000) shares, and likewise file with DuPont Cellophane Company, Inc. undivided orders similarly directing the payment of cash dividends thereon in the proportion of fifty-two sixtieths (52/60) to the party of the first part, and eight-sixtieths (8/60) to the party of the second part.

(7) The party of the second part shall have the right at any time within five (5) years from the date hereof to call upon the Board of Directors of DuPont Cellophane Company, Inc. to once and for all determine whether or not the amount of patent protection then being enjoyed by DuPont Cellophane Company, Inc. is equivalent to that set forth in the aforesaid agreement between the parties hereto, dated January 6, 1923, to-wit: see line six (6) of the first recital of the aforesaid agreement dated January 6, 1923, reading: "a process which is protected by patents in the United States of America", and the fifth (5th) line of paragraph (5) of said agreement reading: "as shall be sufficient to enable the corporation to accomplish the purposes of its organization", and such other portions of said agreement between the parties hereto as may be pertinent to this issue. Such determination shall be made by said Board within forty-five (45) days from the receipt of such request, and if the decision of said Board of Directors of DuPont Cellophane Company, Inc. shall be to the effect that the said amount of patent protection then exists, the party of the first part shall return forthwith and without further payment or consideration therefor on

behalf of the party of the second part, the said ten thousand (10,000) shares of voting common stock, together with any similar stock that may have been issued in connection therewith as a stock dividend in the name of the party of the second part, or its nominees, and held as hereinabove provided for by the party of the first part. If, on the other hand, said decision by the Board of Directors of DuPont Cellophane Company, Inc. is to the effect that the said amount of patent protection to DuPont Cellophane Company, Inc. does not then exist, or if the party of the second part does not request that the Board of Directors determine said question within a period of five (5) years from the date hereof, and at the end of said five (5) year period the Board of Directors has not of its own volition decided the question, then the party of the second part shall be obligated to pay to the party of the first part One Hundred Forty-four Thousand, Four Hundred Forty-four Dollars and Four Cents ($144,444.04) without interest, upon which payment said ten thousand (10,000) shares of common stock shall be returned to the party of the second part by the party of the first part.

(8) As soon as practicable after its organization, but in no event later than July 31, 1923, DuPont Cellophane Company, Inc. shall succeed Birn & Wachenheim as the sole selling agent of Societe La Cellophane in North and Central America, and shall have the right to purchase from Societe La Cellophane, and Societe La Cellophane shall be obligated to supply cellophane to DuPont Cellophane Company, Inc. in any amount not exceeding an average rate of five Hundred (500) kilos per day, until the plant hereinafter provided for at Buffalo, New York, is producing cellophane at the rate of two thousand five hundred (2,500) pounds per day.

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It is further understood and agreed that the parties hereto recognize the existence of seasonal variations in the demand

for cellophane in the United States, [illegible] rate of five hundred (500) kilos per day will be complied with if the following quantities, expressed in terms of [illegible] normal thickness, and of approximately one square metre [illegible], is not exceeded; to-wit; January, February, March, four hundred thousand (400,000) sheets each; May, June and July two hundred and fifty thousand (250,000) sheets each; August, September and October, seven hundred and fifty thousand (750,000) sheets each; November and December, seven hundred thousand (700,000) sheets each. It is further understood and agreed that the prices, terms and conditions covering import purchases herein provided for by DuPont Cellophane Company, Inc. from Societe La Cellophane will be the same as now apply to similar purchases by Dian & Wachenheim from Societe La Cellophane, and that the party of the second part will cause to be delivered forthwith to the party of the first part a comprehensive and explicit statement of said terms and conditions, including any essential details which may not be included in existing written agreements or contracts between Dian & Wachenheim and Societe La Cellophane.

(9) It is the understanding and intention that this agreement shall operate to transfer to DuPont Cellophane Company, Inc. an unqualified, unrestricted and exclusive right to use all and every process now owned by the party of the second part, or its associates, including Societe La Cellophane, or which may hereafter be acquired by it or them in connection with the manufacture of cellophane, excepting, however, any process affecting the manufacture of said product which the party of the second part, or its associates, shall acquire by purchase from any person, firm or corporation not connected or affiliated with the party of the second part, or its associates (DuPont Cellophane Company, Inc. however, shall have

the right to purchase the American rights to [illegible] prior to such rights being offered for sale to any other person, firm or corporation), and said DuPont Cellophane Company, Inc. shall have the exclusive right to manufacture cellophane in North and Central America to be used for any purpose whatsoever, (including its use as a film base in the manufacture of photographic and motion picture films, but not including the sensitizing or other subsequent treatment of said base, the rights to which are hereby expressly reserved to the party of the second part), and immediately after the payment into its treasury of such cash capital as it shall require, the DuPont Cellophane Company, Inc. shall construct a two-unit plant at Buffalo, New York, which plant shall have an estimated daily production of at least three thousand (3000) pounds, and immediately upon the completion of said plant, and the commencement of the manufacture of cellophane, DuPont Cellophane Company, Inc. shall actively engage in selling cellophane produced in said plant throughout the North American continent and Central American countries, or such portion of said territory as it shall see fit to develop from time to time.

(10) After July 31, 1923, the party of the second part shall cease to market, sell, or in any manner offer for sale, either directly, or through any agency, except DuPont Cellophane Company, Inc. any cellophane within the territory aforesaid, but DuPont Cellophane Company, Inc. shall act as the agent of the party of the second part for the purpose of supplying its customers within the United States, or any other portion of said territory until such time as DuPont Cellophane Company, Inc. shall be in a position to supply said customers, after which time such customers shall become the customers of DuPont Cellophane Company, Inc.

(11) Subject to the rights reserved to the party of the second part in Article 9 of this agreement, neither the party of

the first part, nor the party of the second part, or its associates, including Societe La Cellophane, or any corporation controlled by any of them, shall, prior to December 31, 1935, except by or through DuPont Cellophane Company, Inc., engage in or become directly or indirectly interested in any other business or enterprise of the North American continent, or in Central America, engaged in the manufacture of cellophane, either as stockholder, principal or agent, or in any other capacity.

(12) The party of the second part agrees to enter into a contract with DuPont Cellophane Company, Inc. within sixty (60) days from the date of its organization, providing that said DuPont Cellophane Company, Inc. and the party of the second part herein shall each furnish to the other all information that may be requested at any time concerning discoveries, inventions, developments, patents, processes, technical information, course of processes and other and similar information relating to the business of the manufacture and production of cellophane from viscose, and that any and all such information regarding processes, and any and all technical data discovered under such agreement between said parties, or by any corporation owned or controlled by either of them, shall be considered as secret and confidential, and shall not be disclosed to any other person, firm or corporation, it being understood and agreed that the sale or disposition at any time by the party of the second part, or its associates or nominees, of its, or their, stock interest in said DuPont Cellophane Company, Inc. shall not relieve the party of the second part, and/or its associates, nominees or affiliated companies of the obligations imposed on it, or them, under this Article.

(13) The Certificate of Incorporation of said DuPont Cellophane Company, Inc. shall contain the following provisions:-

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(a) That there shall be eleven (11) directors; that at all elections of directors of DuPont Cellophane Company, Inc. each holder of common shares shall be entitled to as many votes as shall equal the number of his shares of stock, multiplied by the number of directors to be elected, and he may cast all of such votes for a single director, or may distribute them among the number to be voted for, or any two or more of them, as he may see fit.

(b) That no bonded indebtedness or indebtedness secured by mortgage, lien, encumbrance, or other charge upon any part of the property of DuPont Cellophane Company, Inc., shall be created without the consent of the holders of at least seventy-five per cent. (75%) of the common stock of DuPont Cellophane Company, Inc., given either in writing, or at a regularly called meeting for that purpose. This prohibition shall not operate to prevent the giving of purchase money mortgages, or other purchase money liens, on property to be hereafter acquired by DuPont Cellophane Company, Inc., nor the creation of corporate indebtedness in the regular course of business.

(c) That the authorized common capital stock of DuPont Cellophane Company, Inc. shall not be increased or reduced, nor shall DuPont Cellophane Company, Inc. change the right of the holders thereof, or authorize the issue of any other class of stock which shall be entitled to participate in the profits of DuPont Cellophane Company, Inc., or exercise any voting power, except that DuPont Cellophane Company, Inc. may, upon the affirmative vote of a majority of the outstanding common stock of the Company, issue non-voting preferred stock in the manner provided by law, entitled to a fixed rate of dividend not in excess of eight per cent. (8%) cumulative, and in the event of the liquidation, dissolution or winding up of DuPont Cellophane Company, Inc., whether voluntary or involuntary, such non-voting stock shall entitle the holders therof to be paid in full the par amount of their shares with all unpaid accumulated dividends thereon, to the date of such payment, before any amount shall be paid to the holders of the common stock.

The number of the membership of the Board of Directors shall not be increased or reduced without the affirmative vote of at least seventy-five per cent. (75%) of the entire outstanding common stock of the corporation given either in writing or at a regularly called meeting for that purpose.

(d) That the Board of Directors shall, except as otherwise provided by law, at its option have power to act in the following manner: a resolution in writing, signed by all of the members of the Board of Directors, shall be deemed to be action by said Board, to the effect therein expressed, with the same force and effect as if the same had been duly passed by the same vote at a duly convened meeting and it shall be the duty of the Secretary of DuPont Cellophane Company, Inc. to record such resolution in the Minute Book of the Company under its proper date.

(e) That no proceedings shall be taken pursuant to statute, or otherwise, for the dissolution of DuPont Cellophane Company, Inc., or for the discontinuance of its business, or for the sale, or other disposition of any substantial part of its capital assets, without the affirmative vote of at least seventy-five per cent. (75%) of the entire outstanding common capital stock of DuPont Cellophane Company, Inc. given either in writing, or at a meeting regularly called for that purpose.

None of the above mentioned specific provisions of the Certificate of Incorporation shall be repealed or amended without the affirmative vote of at least seventy-five per cent. (75%) of the entire outstanding common capital stock of the corporation given either in writing, or at a regularly called meeting for that purpose.

(14). It shall be provided in the By-Laws of DuPont Cellophane Company, Inc. that said Company shall not enter into or incur any contract, or other obligation, with the party of the first part, or any of its affiliated companies, or the party of the second part, or any of its affiliated companies, for the purchase of land, buildings, machinery, supplies, materials, rendition of services, or any other matter requiring the expenditure of money involving a total expenditure of more than Ten Thousand Dollars ($10,000), nor shall any contract of employment be made under which any employee of DuPont Cellophane Company, Inc. shall receive a yearly salary of more than Ten Thousand Dollars ($10,000), unless any such contract or other obligation shall be authorized by the affirmative vote of at least seven (7) directors.

(15). The party of the second part shall cause to be furnished to DuPont Cellophane Company, Inc., all necessary information to enable them to proceed to construct and operate its said plant and to enter into the business of the manufacture and sale of cellophane. It will also cause to be furnished such technical men as may be necessary for that purpose, who shall receive a reasonable compensation, but in no event greater than compensation usually paid to men doing similar work in the United States. In addition, DuPont Cellophane Company, Inc. will pay to such technical men a reasonable amount to cover travelling expenses, and expenses to which they may be subjected due to temporary change of residence. Such technical men shall not be called to remain in the employ of DuPont Cellophane Company, Inc. any longer than their services shall be required for

IN WITNESS WHEREOF the parties hereto have caused this agreement to be executed by their proper officers, and their respective corporate seals to be affixed on the day and year first above written

E.I.duPONT de NEMOURS & COMPANY,

By (S) W.C.Sprulance
Vice President

Witness

(S) Benj. C. Perkus

TRADING CORPORATION.

By (S) Albert Blum
Attorney in fact

Witness

(S) Henry L. Blum

GOVT EXHIBIT NO. 1002
Civ. Action 1216

THIS AGREEMENT between DU PONT CELLOPHANE COMPANY, INC., a Corporation of the State of Delaware, party of the first part, and ARENA TRADING CORPORATION, also a Delaware Corporation, acting on its own behalf, as well as on behalf of, and as the authorized agent of, La Cellophane, Societe Anonyme (of 16 Rue du Louvre, Paris, France), and its other associated and affiliated individuals, partnerships and corporations, parties of the second part.

WITNESSETH:

WHEREAS DU PONT CELLOPHANE COMPANY, INC. has been organized pursuant to a certain agreement dated June 9, 1923, entered into between E. I. DU PONT DE NEMOURS & COMPANY, as party of the first part, and the aforesaid parties of the second part herein as parties of the second part.

NOW, THEREFORE, in consideration of the issuance to the ARENA TRADING CORPORATION, as representative of the parties of the second part, of forty-eight thousand (48,000) shares of the common capital stock of said DU PONT CELLOPHANE COMPANY, INC., on the terms in said agreement set forth, as well as in consideration of the mutual undertakings hereinafter expressed, it is between the parties hereto agreed as follows:

FIRST: The parties of the second part assign and transfer to the party of the first part the entire right, title and interest, in so far as any country in North and Central America is concerned, in and to all rights, trademarks, patents, patent rights (including pending patent applications), processes, data, knowledge and information concerning that certain product made from viscose known as cellophane, and in and to all processes and apparati for making or using it, including its use as a film base in the manufacture of photographic and motion-picture films, but not including the sensitizing or other subsequent treatment of said base, the

AT-13461

GOV'T EXHIBIT NO. 1013
Civil Action 1216

DU PONT CELLOPHANE COMPANY
NEW-YORK

March 6th. 1930

LA Cellophane
LA CELLOPHANE
Paris.

Attention of Messrs. Gillet & Bernheim

Dear Sirs,

We submit below our understanding of the arrangement agreed to this morning between Messrs. Gillet and Bernheim and Messrs. Pickard and Jay in reference to the extension of the Field of activities of the Du Pont Cellophane C° made necessary as a result of your negociations with Nidac and Kalle and possibly with Wolff, all subject to final approval of our respective Boards of Directors.

1. Whereas Du Pont Cellophane C° was so far confined to the markets of North America laying North of Panama canal, it is now agreed in reparation and as a result of Nidac's past activities in North America and the formation by this company in United States of the Sylvania Industrial Corporation of America, that the fields of the Du Pont Cellophane C° be extended to a certain percentage to other countries thereafter specified, in consequence, Du Pont Cellophane company approves of your accepting stock in the Nidac which in turn owns directly or indirectly stock of the Sylvania Industrial Corporation of America, provided you will do your best to prevent any technical information, patents or other data given by Du Pont Cellophane C° to you or your licensees, to go to Nidac or the Sylvania Industrial Corporation either directly or indirectly.

2. In the event Wolff comes within the accord of the arrangement outlined in your memorandum of February 11-12 all of the companies are to enjoy their own territory free from the competition of the others, the remainder of the world to be divided according to the quotas of past experience, endeavouring to stabilise prices therein. Of that portion of this so-called "world-territory", which is determined for

AT-7193

rights to which are hereby expressly reserved to the parties of the second part.

And they agree to make, execute and deliver any further assignments or other instruments that may be necessary or proper for the complete transfer of said rights and for their recording, to the end that the ownership thereof by said DU PONT CELLOPHANE COMPANY, INC. in all countries in North America and Central America may be completely established and demonstrated.

SECOND: The parties of the second part further agree to assist DU PONT CELLOPHANE COMPANY, INC. in every appropriate way in protecting its rights, patents and trademarks throughout North America and Central America, such assistance to apply not only to the rights, patents and trademarks now existing, but to any ones to which said DU PONT CELLOPHANE COMPANY, INC. may hereafter become entitled.

THIRD: The parties of the second part further agree to assign and transfer to DU PONT CELLOPHANE COMPANY, INC., without charge, the entire right, title and interest, in so far as all countries in North America and Central America are concerned, in and to any rights, trademarks, patents, patent rights, processes and apparati that may hereafter be discovered, invented or developed by them, or any of them, having to do with cellophane or the processes or apparati for manufacturing or using it.

It is understood, however, that in case any such right shall be acquired by the parties of the second part from sources outside this agreement, the parties of the second part shall not be obliged to acquire the rights for North America and Central America and to transfer them to DU PONT CELLOPHANE COMPANY, INC., but they shall use their best efforts to enable DU PONT CELLOPHANE COMPANY, INC. to acquire such rights for North America and Central America on terms most favorable to it.

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FOURTH: DU PONT CELLOPHANE COMPANY, INC. agrees to assign and transfer to the parties of the second part without charge, the entire right, title and interest, insofar as concerns all countries other than in North America and Central America, in and to any rights, trademarks, patents, patent rights, processes and apparati that may hereafter be discovered, invented or developed by it having to do with cellophane, or the processes or apparati for manufacturing or using it.

It is understood, however, that in case any such right shall be acquired by DuPont Cellophane Company, Inc. from sources outside this agreement, it shall not be obliged to acquire the rights for countries other than in North America and in Central America and to transfer them to the parties of the second part, but it shall use its best efforts to enable the parties of the second part to acquire such rights for all countries other than North America and Central America on terms most favorable to them.

FIFTH: Both parties furthermore agree to furnish without charge, each to the other, all information that may be requested at any time concerning discoveries, inventions, developments, patents, processes, technical data, change of processes and other and similar information relating to the business of manufacturing cellophane from viscose.

SIXTH: In the event, however, that a corporation or enterprise not associated and affiliated with La Cellophane Societe Anonyme should hereafter be organized to manufacture and exploit the product made from viscose known as "cellophane" in any country except France and North and Central America, pursuant to agreement with La Cellophane Societe Anonyme, it is agreed that such company so formed or licensed by La Cellophane Societe Anonyme shall be entitled to receive through La Cellophane the aforesaid rights, trademarks, pitents, patent rights, processes, apparati and information above mentioned and described in paragraphs Fourth and Fifth hereof, free of charge only on condition, however,

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La Cellophane in South America, China and Japan 50% thereof to be allotted to Du Pont Cellophane C°., which shall sell at prices similar to the others of the group. Details as to agents, methods of distributi etc. to be worked out to our mutual satisfaction.

3. In the event Wolff does not join in the accord and as a consequence Kalle & C° does not relinquish China to the "world territory" then Du Pont Cellophane C° shall be entitled to a volume of business in South America and Japan equivalent to that of La Cellophane.

4. In the event it shall be deemed desirable at some future date to erect a manufacturing plant in Japan and or South America, then Du Pont Cellophane C° shall have the option to a participation to the same extent and terms as La Cellophane.

5. It is further understood that in the event of any happening that may result in the elimination of any of the existing companies except La Cellophane, Du Pont Cellophane C° is to receive always a quota equal to that of La Cellophane in those countries to which Du Pont is now to be admitted.

6. It is understood that all of the foregoing refers to and covers regular cellophane, only, that is to say moisture proof cellophane is not included inasmuch as it refers to the Agreements with the several companies (Sidac, Wolff, etc...)

7. As regards moisture proof cellophane, Du Pont Cellophane C° is entitled to a quota equivalent to that of La Cellophane in South America and Japan and also in China in the event concessions are obtained by you from Kalle & C° for the last named country. It is understood that moisture proof cellophane material shall always be sold at an advance price over regular cellophane.

8. It is our mutual understanding and desire that there shall be close cooperation between your group and Du Pont Cellophane C° in matters of price control and general sales information and development in the specified territories.

Inasmuch as Mr. Pickard is desirous of returning home at once and since Mr. [illegible] is also planning an early departure,

7193

Civil Action 1216

that such company so formed or licensed to manufacture cellophane shall in turn agree to furnish through La Cellophane to the DuPont Cellophane Company, Inc., free of charge, corresponding rights and information, etc.

SEVENTH: All other obligations assumed by the parties of the second part or E.I. DU PONT DE NEMOURS & COMPANY in said agreement of June 9, 1923, intended for the benefit of DU PONT CELLOPHANE COMPANY, INC. are hereby assumed by them directly with said DU PONT CELLOPHANE COMPANY, INC.

IN WITNESS WHEREOF the parties have caused this agreement to be executed by their duly authorized officers on the twenty sixth day of December A.D. 1923.

DU PONT CELLOPHANE COMPANY, INC.

By L. A. Yerkes - L. A. Yerkes
President.

Attest M. du Pont Lee
Secretary

ARENA TRADING CORPORATION.

By La Gillet Ed. Gillet
President & ~~Secretary~~.

Witness:
Julian Kemble Smedley

Witness:

We approve and ratify the foregoing agreement and agree to be bound thereby.

La Cellophane
Societe Anonyme

By Alfred Bernheim

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(Form No. 83—Consular.)
(Corrected March, 1914.)

Certificate of Acknowledgment of Execution of Document.

Republic of France
(Country.)
City of Lyon
(County or other political division.)
Consulate of the United States of America
(Name of consular office.)

ss:

I, Cyrus B. Follmer, Vice Consul of the United States of America at Lyon, France duly commissioned and qualified, do hereby certify that on this 26th day of December 1923 (Date.), before me personally appeared Ed. Gillet, President of the Arena Trading Corporation

to me personally known, and known to me to be the individual described in, whose name is subscribed to, and who executed the annexed instrument, and being informed by me of the contents of said instrument he duly acknowledged to me that he executed the same freely and voluntarily for the uses and purposes therein mentioned.

In witness whereof I have hereunto set my hand and official seal the day and year last above written.

Cyrus B. Follmer
Cyrus B. Follmer
Vice-Consul of the United States of America.

FEE NO. TWO DOLLARS.

Wherever practicable all document should be included in one certificate.

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Service No. 1581
$2.00 39.80

GOVT EXHIBIT NO. 1615
Civil Action 1216

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EXTRACT FROM MINUTES OF MEETING 11
BOARD OF DIRECTORS - DUPONT CELLOPHANE COMPANY
May 8, 1930.

S.I.D.A.C. - AMERICAN COMPANY AFFILIATION PARTICIPATION BY LA CELLOPHANE:

Vice-President B. M. May orally reported upon his discussions with La Cellophane in Paris during March 1930, on the subject of reparations to Du Pont Cellophane Company resulting from the settlement of the difficulties between La Cellophane and the Belgian S.I.D.A.C. (Societe Industrielle de la Cellulose, Ghent, Belgium).

In the settlement La Cellophane is to receive in reparations stock of the Belgian S.I.D.A.C., which in turn owns stock in the Sylvania Industrial Corporation of America. La Cellophane would, therefore, have an indirect interest in the Cellophane business in this country, whereas under the sale of their patents and "know how" to us in 1923 it was agreed that La Cellophane would not engage in such business with others in North America.

Under the circumstances, it was necessary in a spirit of fairness to permit La Cellophane to accept the stock of the Belgian S.I.D.A.C., provided such consent upon our part brought with it concessions to us.

Proceeding upon the above basis, Mr. May stated to La Cellophane that he would submit to his Board of Directors the following proposition, made by La Cellophane subject to approval of its Board of Directors, viz:

> Du Pont will approve La Cellophane accepting stock in the Belgian S.I.D.A.C. under the following conditions:
>
> (a) That La Cellophane will undertake to do its best to prevent technical information, patents and other data furnished by Du Pont, to La Cellophane and/or its licensees from going directly or indirectly to the Belgian S.I.D.A.C. or its affiliated companies, particularly the Sylvania Industrial Corporation;
>
> (b) That, as applied to Non-Moistureproof Cellophane, Du Pont shall have equal rights with La Cellophane in Japan and South America, and also in China, provided La Cellophane obtains rights in the last named country;
>
> (c) That in the event of any happening that may result in the elimination of any of the existing companies, except La Cellophane, Du Pont Cellophane is to receive always rights equal to those of La Cellophane in the specified countries;
>
> (d) That Du Pont shall have equal rights with La Cellophane in South America and/or Japan on Moistureproof Cellophane;
>
> (e) That Du Pont shall have the option to participate upon the same terms and conditions as La Cellophane in any undertaking to build plants in Japan and/or South America.

After detailed discussion of the subject in all its aspects, the Board unanimously gave its approval to the arrangement as outlined, and instructed Mr. May to so inform La Cellophane.

GOV'T EXHIBIT NO. 1022
Civil Action 1216

DU PONT CELLOPHANE

Cellophane is the Registered Trade Mark of Du Pont Cellophane Company
to designate its transparent cellulose sheets and films

DU PONT CELLOPHANE COMPANY, INC.

EMPIRE STATE BUILDING
350 FIFTH AVENUE
NEW YORK, N.Y.

February 15, 1935.

Mr. W. S. Carpenter, Jr., Vice-Pres.,
E. I. du Pont de Nemours & Co.
Wilmington, Del.

Dear Walter:

As per your request when you were in the office today, we are enclosing copies of the following letters:

4/1/32 - La Cellophane to J. E. Hatt.
Also photostat of map which accompanied this letter.
3/10/25- La Cellophane to Dr. Ernesto Sarra, (Druggist), Havana, Cuba.
4/16/29- Wm. S. Pritchard to Du Pont Rayon Co. (Atten: Mr. Pralatowski).

The last letter listed above presents a point of view th t you may wish to consider when preparing a letter to Mr. Bernheim.

Very truly yours,

BMM:HL
Encls.

Will send promptly photostat of map showing Du Pont territory?

AT-6337

Dup 72M69-
12/4/41

Consulate General of the United States of America } SS.
At the City of Paris in the Republic of France }

I, Consul of the United States of America at the City of Paris in the Republic of France duly commissioned and qualified, do certify that on this 4th day of January 1924 before me personally appeared in said Paris, France Alfred Bernheim

to me personally known, and known to me to be the individual described in whose name is subscribed to and who executed the foregoing instrument and being by me informed of the contents of said instrument, he duly acknowledged to me that he executed the same freely and voluntarily for the uses and purposes therein mentioned and in the capacity therein stated

In witness whereof I have hereunto set my hand and official seal the day and year last above written

Damon E. Woods
Consul of the United States of America
At Paris, France

AMERICAN CONSULATE GENERAL
$1 $1
PARIS FRANCE

State of New York }
County of Erie } SS.:

On this 15th day of January in the year 1924 before me personally came the above named L. A. Yerkes, to me known and who being by me duly sworn, did depose and say that he is the President of Du Pont Cellophane Company, Inc., the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he as President and M. du Pont Lee as Secretary signed their respective names thereto by like order, and that the said instrument was executed by them as the lawful act of said corporation.

Richard [illegible]
NOTARY PUBLIC

(SEAL)

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COPY

GOV'T EXHIBIT NO. 1003 in
Civil Action 1316

THIS AGREEMENT entered into this 15th day of March, 1929, between LA CELLOPHANE, a French Corporation, having its principal office at Paris, France, hereinafter referred to as Cellophane, party of the first part, and E. I. DU PONT DE NEMOURS & COMPANY, a corporation of the State of Delaware, having its principal office at Wilmington, Delaware, hereinafter referred to as DuPont, party of the second part.

W I T N E S S E T H :

WHEREAS a certain agreement dated June 9, 1923, was entered into between Arena Trading Corporation and DuPont providing for the organization of a corporation to engage in the business of manufacturing cellophane by the viscose process throughout the United States of America, and

WHEREAS Cellophane is the owner of all the patents and processes referred to in said agreement and is one of the real parties in interest thereunder, having ratified and confirmed the same subsequent to its execution, and

WHEREAS DuPont Cellophane Company, a corporation of the State of Delaware, United States of America, was organized pursuant to the terms and conditions of said agreement of June 9, 1923, and has continuously engaged in the business of manufacturing and selling cellophane under the viscose process, and

WHEREAS by virtue of a plan of reorganization said cellophane business has been acquired by DuPont, and

WHEREAS the parties hereto agree that it is to the mutual advantage and benefit of both parties that a free exchange of information, with respect to discoveries, patents, processes and developments, shall be continued in the future.

NOW, THEREFORE, the parties hereto have agreed with each other as follows:

1. DuPont agrees that a corporation shall be organized for the purpose of acquiring, operating and conducting

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Consulate General of the United States of America
At the City of Paris in the Republic of France } SS.

I, [illegible] Consul of the United States of America at the City of Paris in the Republic of France duly commissioned and qualified do hereby Certify that on this 4th day of January 1924 before me personally appeared in said Paris, France

Alfred Bernheim

to me personally known, and known to me to be the individual described in, whose name is subscribed to and who executed the foregoing instrument and being by me informed of the contents of said instrument he duly acknowledged to me that he executed the same freely and voluntarily for the uses and purposes therein mentioned and in the capacity therein stated

In witness whereof I have hereunto set my hand and official seal the day and year last above written

Daniel C. Roper
Consul of the United States of America
at Paris, France

AMERICAN CONSULATE GENERAL

$1 $1

State of New York
County of Erie } ss.:

On this 18th day of January in the year 1924

said cellophane business acquired by DuPont by virtue of the plan of reorganization hereinabove referred to, and all of the property acquired by DuPont from said DuPont Cellophane Company pursuant to said plan of reorganization shall be transferred to said corporation.

2. Cellophane agrees that all of the obligations owed by Cellophane and its associated and affiliated companies to DuPont Cellophane Company, under Articles Ninth, Eleventh and Twelfth of said agreement dated June 9, 1923, as well as all obligations arising by virtue of any and all technical agreements entered into pursuant to its obligation under said Articles shall remain in full force and effect in favor of the corporation organized by DuPont for the purpose of owning and conducting said Cellophane business, or its successor in interest.

3. DuPont agrees that all obligations, contracts and liabilities of DuPont Cellophane Company shall be assumed by the corporation organized for the purpose of operating and conducting the business of said DuPont Cellophane Company, and that said Articles Ninth, Eleventh and Twelfth, as well as all technical agreements made subsequent thereto, shall continue in full force and effect and be binding on said corporation or its successor in interest in accordance with their terms and provisions.

4. It is the intention hereof that Cellophane shall be represented on the Board of Directors of said corporation succeeding to the business and interests of said DuPont Cellophane Company by the same number of directors which now represent Cellophane on the Board of said DuPont Cellophane Company, and that such representation shall continue so long as the best interests of both parties hereto, and the best interests of said corporation shall be served thereby, it being understood always that the determination of any question relating to the policy of said corporation in this regard shall always rest with its stockholders.

5. The parties hereto mutually agree that said successor corporation shall be deemed a party in interest under

this agreement and shall be entitled to enforce the same in its own name in the same manner and with like effect as though said successor corporation was a party hereto.

6. Except as herein otherwise provided, said agreement of June 9, 1923, shall be cancelled and terminated.

IN WITNESS WHEREOF the parties hereto have caused this agreement to be executed in duplicate by their duly authorized officers on the day and year first above written.

LA CELLOPHANE,

By (S)_____

E. I. DU PONT DE NEMOURS & COMPANY,

By(S)W.S.Carpenter,
V.P.

Attest:

(S)H.D.Fisher,
Asst.Secretary.

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satisfactory to meet the British Company's views so far as their own territory is concerned.

I will be very glad to learn whether the arrangement suggested is entirely satisfactory to you, in which case it will probably be desirable to have it described somewhat more clearly in a more formal memorandum, to be accepted by both yourselves and ourselves.

Yours sincerely,

(s) W. S. Carpenter Jr.

CHAIRMAN, FINANCE COMMITTEE

WSC:r

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GOVT EXHIBIT NO. 1037
Civil Action 1216

Copy for: Foreign Relations Dept
Wilmington

DU PONT CELLOPHANE

DU PONT CELLOPHANE COMPANY, INC.

EMPIRE STATE BUILDING
350 FIFTH AVENUE
NEW YORK N Y

December 27, 1934.

J R Brandenberger

Mr. J.R. Brandenberger,
"La Cellophane",
Bezons, France.

Dear Mr. Brandenberger:

SALES IN SOUTH AMERICA AND JAPAN

HATT

Mr. Hatt has shown me your letter of December 18th on the above question.

We have no objection to exchanging figures with you on South American and Japanese sales, but before doing so we again want to make our position in this entire matter absolutely clear.

We wrote you under date of March 28, 1934, which letter referred to a previous letter to Mr. Bernheim under date of June 2, 1932, which in turn referred to a definite action of our Board of Directors relative to our relationships in the sale of our respective products in South America and Japan.

If, therefore, with the above definitely in mind, you still want to exchange figures with us on South America and Japan, and if you will at the same time give us the figures of the other members of the South American consortium showing the quotas established for each and the extent to which they adhered thereto, we will arrange to send ours.

AT-13465

With kindest regards, we are

Yours very truly,

a. A. Yerkes

L A Yerkes

LAY-ML

GOV'T EXHIBIT No. 1046
Civil Action 1216

c.c. Col. W. Spruance
Mr. F. W. Pickard.
Mr. Henry L. Blum

July 26, 1927.

Mr. Rene Bernheim,
c/o Comptoir des Textiles Artificiels,
5 & 7 Avenue Percier,
Paris 8, France.

Dear Mr. Bernheim:

This is in reply to your letter of July 11 which has just been received.

Increased Duty - No. 1

As you are aware from the memorandum I recently sent you, the Commissioner of Customs has refused our claim leading to an increase in duty on "Cellophane", so that this matter will now have to go thru the courts and while we are of the opinion that our position is correct and will eventually be ratified, it will be a matter of from one to two years before we can hope for any increase in duty.

We decided and incidentally came to this decision before we knew of the refusal to have the duty increased to reduce our "Cellophane" price, probably on September 1. It is not definitely settled what this reduction will amount to, but we believe we shall reduce it about 12%, making our price in quantities 6¢ per thousand square inches instead of 6-3/4¢, which is the present price. We do not believe this will keep out all foreign "Cellophane", but we do believe it will have a deterring effect on importations. We leave it to you to decide whether to use this information or not.

I believe under certain conditions we might agree to the sale of Transparit in the U.S.A. to the extent of 10% of our own sales of non-waterproof material, the Germans to take any risk of increased duty and with the understanding that we would not have to sell at a loss. At any rate we see no objection to your discussing the matter with them along these lines.

we would appreciate your advice as to the foregoing subject, of course to ratification by our respective Boards.

Most respectfully

Du Pont Cellophane Co Inc.

By E. M. May
Vice-President

~ 7193

LA CELLOPHANE

BEZONS

April 1, 1932.

Mr. J. E. Hatt, General Manager,
Du Pont Cellophane Co. Inc.
350 Fifth Avenue,
New York, U.S.A.

Dear Sir: WOLFF PRICES IN CUBA

We have received in due time your favor of the 18th February, and beg to apologize for having kept you waiting with our reply thereto.

Messrs. Wolff & Co. do belong to our Convention, and they are bound to respect our prices. By the way we told you in our letter of the 10th December that this firm was a member of the Syndicate, and that they were selling at identical prices as ours. We further stated the share this firm has had in the South American and Japanese business so far.

We, therefore, do not understand why you ask us which is the position of this German Factory with regard to our Convention with S.I.D.A.C.

In order to give you an idea of how this Convention works we are sending you under separate cover a colored map of the globe indicating the countries in which every member has an exclusivity or may sell in conjunction with other members.

We distinguish between:

1. Reserved countries -
2. Open markets with price agreement -
3. Open markets without price agreement.

RESERVED COUNTRIES - CELLOPHANE BEZONS: France and French colonies (red color on the map)

S.I.D.A.C. : Belgium - Luxemburg - Holland - Italy and resp. colonies (green color on the map)

KALLE & WOLFF & CO: Germany (blue color on the map)

There is no price agreement whatsoever concerning the reserved countries, every member being at liberty to fix

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his own selling prices, Germany excepted where Wolff & Kalle fix the selling prices in common.

OPEN markets WITH AGREEMENT. We distinguish 2 sectors:

1. EAST (light blue) belonging to Kalle, Wolff and S.I.D.A.C.

2. WEST (pink) belonging to BRONS, WOLFF and S.I.D.A.C. i.e. the selling arrangement that we have with KALLE has been taken over into the Convention.

OPEN MARKETS WITHOUT PRICE AGREEMENT. These we might call DU PONT Section. Owing to the fact that you preferred not to join the Convention we could not keep WOLFF and S.I.D.A.C. away from your markets, i.e. the United States, Canada, etc. as they would not get anything in return, whereas ourselves would, of course, as in the past, refrain from selling in your territory.

CUBA: being situated north of the Panama Canal, belonging thus to your territory, WOLFF & CO. are quite free to fix their selling prices and enter into open competition with yourselves. We have no means to hinder them from doing so, and it is up to you to get in direct touch with this firm, if you care to come to a price agreement in the countries that are not subject to our Convention rules.

As requested we return you herewith the photostatic invoice which you were good enough to send us, and we trust that above explanations concerning our Convention will put matters clear now.

We may add that every factory has got a share of a fixed percentage of the business done with the open markets (light blue and pink), whereas the quantities sold in the reserved countries do not account for the final share of each member. One might be inclined to think that this would favor hidden exportations out of the reserved countries into the open market in order to increase ones own share, but as a matter of fact we have only in very rare occasions met with such shipments which by the way we feel sure had been made against the will of the manufacturers in question.

We shall be pleased to receive by return mail your selling figures in South America and eventually in Japan, for which we have previously requested you, as we are anxious to get straight as soon as possible with our partners.

Yours very truly,

SOCIETE "LA CELLOPHANE"

F. MEYER,

Commercial Director.

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CELLOPHANE - 1 9 3 7

Total Pounds

COUNTRY	P.T.	M.T.	TOTAL
Mexico	106,361.5	446,572.9	552,934.4
El Salvador	4,075.5	189.5	4,265.0
Nicaragua	771.5	14,051.2	14,822.7
Costa Rica	2,875.6	18,298.9	21,174.5
Panama	478.7	108.6	587.3
Cuba	92,211.2	13,661.7	105,872.9
Haiti	2,292.8	138.8	2,431.6
Jamaica	-	16,708.7	16,708.7
Trinidad	275.4	78.7	354.1
Curacao	-	401.9	401.9
Philippine Is.	17,470.8	66,981.5	84,452.3
Puerto Rico	9,986.0	1,495.0	11,481.0
Hawaii	2,864.5	2,679.1	5,543.6
Guatemala	2,167.1	8,388.8	10,555.9
Bermuda	101.1	156.3	257.4
Honduras	4,665.9	1,187.9	5,853.8
Dominican Rep.	18,166.8	518.5	18,685.3
Miscellaneous	34.8	9,116.0	9,150.8
Colombia	94,645.4	124,403.0	219,048.4
Brazil	140,219.3	120,637.6	260,856.9
Argentina	85,239.9	168,085.6	253,325.5
Chile	7,493.7	27,517.9	35,011.6
Ecuador	1,375.3	7,291.0	8,666.3
Peru	651.5	1,475.1	2,126.6
Venezuela	29,829.3	3,173.9	33,003.2
Uruguay	11,783.8	5,653.0	17,436.8
Japan	394.6	11,175.5	11,570.1
England	91,324.1	425,116.6	516,440.7
GRAND TOTAL	727,756.1	1,495,263.2	2,223,019.3

DU PONT CELLOPHANE COMPANY, INC.

EMPIRE STATE BUILDING
350 FIFTH AVENUE
NEW YORK, N.Y.

1932
June 2, 1932.

Rene Bernheim

Mr. Rene Bernheim,
Comptoir des Textiles Artificiels,
7 & 7 Avenue Percier,
Paris 8, France.

FOREIGN CELLOPHANE MARKETS

Dear Mr. Bernheim:

You will see in due course a resolution passed on May 24, 1932, by the Board of Directors of the Du Pont Cellophane Company, Inc., in reference to our export business to South America, Japan and China.

When it was attempted in the Spring of 1930 to work out a plan to enable you to accept stock in the Belgian SIDAC which would accord us the reparations for the damage the formation of the Sylvania Industrial Corporation caused us - they have acquired a notable percentage of the United States market - we subscribed to the fundamental principle that North American territory was to be left to Du Pont and Sylvania, and that Du Pont was to have its fields extended to South America and Japan. Du Pont was also to be extended to China if Wolff joined a Convention then being organized. We understand Wolff has joined.

We have read with interest the letter from La Cellophane, dated April 1, 1932, which discloses a course, since the Spring 1930, not consistent with our understanding of the arrangements agreed upon and, in our view, has resulted in lesser benefits than contemplated. The European arrangements then under discussion have apparently not worked out in accordance with the expectations and the situation has seemingly become more wholly impracticable in view of the increased demand for the moistureproof article. The latter, as a practical matter, cannot be marketed unassociated with the regular or plain. Neither can prices be maintained for export business inconsistent with domestic prices, especially in those cases where some of the important buyers in South American countries have either headquarters or representatives in this country.

Considering all of the circumstances, we must consider ourselves free to pursue our own policy of sales in South America, Japan and China.

AT 7185
Du P 37-Cy 128
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Very truly yours,

L.A. Yerkes

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CELLOPHANE - 1 9 3 8

Total Pounds

COUNTRY	P.T.	M.T.	TOTAL
Mexico	117,217.0	416,286.0	533,503.0
El Salvador	1,951.7	8,559.9	10,511.6
Nicaragua	543.7	13,522.5	14,066.2
Costa Rica	787.3	23,563.5	24,350.8
Panama	158.9	11.1	170.0
Cuba	79,270.8	10,759.2	90,030.0
Haiti	3,508.1	-	3,508.1
Jamaica	411.0	33,931.2	34,342.2
Trinidad	-	539.5	539.5
Philippine Is.	39,030.5	75,567.1	114,597.6
Puerto Rico	9,806.4	547.3	10,353.7
Hawaii	3,152.7	5,183.2	8,335.9
Guatemala	5,907.0	16,933.6	22,840.6
Bermuda	-	281.3	281.3
Honduras	5,240.0	1,701.0	6,941.0
Dominican Rep.	15,116.9	1,755.1	16,872.0
Virgin Islands	36.3	-	36.3
Miscellaneous	263.5	15,553.6	15,817.1
Colombia	78,063.8	160,356.3	238,420.1
British Guiana	199.8	-	199.8
Surinam	-	152.2	152.2
Brazil	165,366.9	185,815.3	351,182.2
Argentina	229,621.2	418,968.6	648,589.8
Chile	5,890.3	30,465.3	36,355.6
Ecuador	597.2	6,509.1	7,106.3
Peru	4,872.5	2,454.2	7,326.7
Venezuela	20,029.5	3,898.1	23,927.6
Uruguay	24,614.9	18,442.0	43,056.9
Japan	20.4	5,517.2	5,537.6
England	26,232.9	104,199.5	130,432.4
GRAND TOTAL	837,911.2	1,561,472.9	2,399,384.1

E. I. DU PONT DE NEMOURS & COMPANY
Wilmington, Delaware

Executive Offices December 13, 1934

Mr Rene Bernheim,
Comptoir des Textiles Artificiels,
5, Avenue Percier,
Paris 8, France.

Dear Mr. Bernheim:

Mr. May has sent on to me your letter of November 15th, on the subject of du Pont Cellophane territory in North and Central America which refers back to the agreement of June 9, 1923, between du Pont and Arena on this subject.

There does seem to be some ground in that contract for ambiguity as to the territory which it was contemplated should be covered. We have a peculiar division in the territory specified between political divisions and geographical divisions. While the contract is phrased in geographical terms it obviously does cover a mixture of political divisions.

I presume when one describes a territory as North and Central America it might be contended that the area covered is confined strictly to the mainland of the North American continent. On the other hand, I presume it is quite obvious that such a division would comprise certain of the islands lying closely adjacent to that continent. For instance, Long Island lying off New York, I think, would obviously be included, though just how far from the mainland we can go with equal assurance is uncertain.

I think it is perhaps correct to say, that when we have secured rights for this same general territory we have usually meant it to include the islands of the West Indies. On the other hand, I think it is also fair to say that the description of such territories have usually specifically stated the West Indies. In this particular case I have endeavored to learn from Colonel Spruance, who was active in connection with these original negotiations, whether he felt the West Indies were or were not contemplated in the arrangement and he advised me that his recollection is not sufficiently clear for him to state one way or the other.

In the original phraseology of the British contract there is included in the British territory the British Empire, excluding the Dominion of Canada. That expression is perhaps too broad as it would embrace not only the Br tish West Indies, but also British Honduras in which case there is an obvious conflict with our territory,

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and also Newfoundland, which we have always assumed to be part of our territory.

I am wondering whether the present incident does not suggest an opportunity for a clearer definition of the territory of the respective parties. Believing that it does I am suggesting that our territory be defined as below, though in this I am including some territories such as the Philippine Islands and certain other islands in the Pacific which were not named in the original draft, and at the same time I am excluding from our territory all of the British and French possessions or territories in the West Indies and the Bermudas.

My suggestion is that the du Pont territory include all continental North and Central America, north of the Republic of Columbia, together with the islands immediately adjacent thereto, together with Newfoundland, Cuba, Haiti and the Dominican Republic, together with all possessions of the United States in the West Indies and the Pacific, but excluding all the possessions or territories of France or Great Britain or other European powers in the West Indies or the Bermudas.

It is quite probable that, in point of area, the West India islands reserved to du Pont under this arrangement cover a greater area than the remainder of those islands. There are a number of reasons why I have ventured this suggestion under theses circumstances. In the first place these islands always have seemed somewhat closer to this country, not only in point of distance but also from their trade relationships. On the other hand they are neither French nor British, nor do they belong to any other European power. Again, we have been led to the assumption hereto fore that they were a part of our territory. As an example I cite a reference to this territory in a letter from your Mr. Meyer, under date of April 1, 1932, in which he speaks of "Cuba being situated north of the Panama Canal, belonging thus to your territory******", and a further reference to the minutes of the meeting of the various viscose sheeting producers of February 11 and 12, 1930, in which the territory excluded, apparently because of its being considered du Pont territory, is referred to as "Canada, Mexico, United States, Cuba and, generally speaking, all countries of North America down to the Panama Canal".

Further, it seems to me that this distribution of territory meets that paragraph in your own letter which reads - "It is obvious that the Isles which are France's colonies belong to our sector, and that the Isles which are colonies of Great Britain are under the British protectorate, belong to the British sector". This arrangement is also sure to be quite

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Paragraph No. 2

I think this is all covered above.

American Cellophane Co. No. 3

I did not realize that the French S.I.A.P. Company had a 50% interest in the American S.I.A.P. Company. I was under the impression that it was a much smaller percentage than this. If your interest is one-half, I would judge your influence would be one-half, which would be a decided help in obtaining for the "Cellophane" Company proper participation in the American Company. For the sake of clarity I am quoting from your letter the following:

"The arguments which I use, or would like to use, are the following:

1. Obtain a participation as large as possible for the Du Pont Cellophane in the American S.I.A.P.

2. For Kalle & Co.: reciprocate technical agreement between Du Pont Cellophane Co. and the Cellophane Department of Kalle & Co.

3. The Du Pont Cellophane Co. waterproofing process to be held free at the disposal of the Cellophane department of Kalle & Co. in the German S.I.A.P. Co. and also t the American S.I.A.P.Co."

We have no comments to make on the above, as we believe it is already understood that we will agree to No. 3 in consideration of a proper participation of No. 1.

Paragraph No. 6

No comments.

Paragraph No. 8

We have recent indications that Birn & Wachenheim are importing increasing quantities right along and we believe this to be so.

Very truly yours,

LAY:HL

PRESIDENT.

GOV'T EXHIBIT NO. 1061
Civil Action 1216

C E L L O P H A N E

YEARS 1935 - 1941 INCL.

Total Pounds

C O U N T R Y	P.T.	M.T.	TOTAL
Angola	1,950.9	-	1,950.9
Argentina	945,714.2	1,947,675.6	2,893,389.8
Bermuda	101.1	862.5	963.6
Bolivia	2,425.7	3,878.8	6,304.5
Brazil	1,149,816.1	1,021,206.5	2,171,022.6
British Guiana	1,020.4	2,974.0	3,994.4
Canary Islands	7,082.0	-	7,082.0
Chile	84,843.8	185,638.8	270,482.6
China	5,243.7	442.0	5,685.7
Colombia	1,100,654.1	1,159,890.1	2,260,544.2
Costa Rica	23,420.0	143,756.3	167,176.3
Cuba	710,830.6	141,237.0	852,067.6
Curacao	329.3	2,320.5	2,649.8
Dominican Rep.	119,102.5	10,566.0	129,668.5
Dutch Guiana	-	1,223.2	1,223.2
Ecuador	13,102.6	58,599.3	71,701.9
Egypt	72,615.4	2,611.9	75,227.3
Guatemala	41,613.0	109,600.6	151,213.6
Haiti	21,156.2	138.8	21,295.0
Hawaii	27,952.4	91,923.8	119,876.2
Honduras	38,721.6	36,044.4	74,776.0
Iceland	871.6	-	871.6
Jamaica	856.2	141,634.0	142,490.2
Japan	2,658.7	71,910.9	74,569.6
Java	38,802.1	128,720.8	167,522.9
Liberia	140.2	-	140.2
Martinique	-	1,434.4	1,434.4
Mexico	1,149,287.6	2,925,314.3	4,074,601.9
Morocco	273.0	-	273.0
Nicaragua	6,219.3	75,451.8	81,671.1
Palestine	-	711.0	711.0
Panama	4,349.4	2,500.0	6,849.4
Paraguay	1,347.0	-	1,347.0
Peru	33,034.0	27,731.7	60,765.7
Philippine Is.	253,442.8	515,290.1	768,732.9
Puerto Rico	110,219.7	36,447.9	146,667.6
Portugal	27,921.0	42,819.0	70,740.0
Port. E. Africa	1,145.0	-	1,145.0
Salvador	44,242.7	24,000.0	68,242.7
Surinam	2,724.4	2,000.0	4,724.4
South Africa	12,700.0	14,600.0	27,300.0
Trinidad	2,722.2	2,121.9	4,844.1
Uruguay	102,710.0	40,000.0	142,710.0
Venezuela	200,332.2	58,400.0	258,732.2
Virgin Islands	20.2	-	20.2
England	444,000.0	1,000,000.0	1,444,000.0
[illegible]	[illegible]	[illegible]	[illegible]
T O T A L	[illegible]	[illegible]	[illegible]

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CELLOPHANE - 1 9 3 5

Total Pounds

C O U N T R Y	F.T.	M.T.	TOTAL
Bermuda	-	37.6	37.6
Bolivia	10.9	12.0	22.9
British Guiana	185.3	-	185.3
Chile	4,920.8	13,079.6	18,000.4
Colombia	65,870.5	37,488.6	103,359.1
Costa Rica	1,647.1	11,977.2	13,624.3
Cuba	64,717.1	8,354.1	73,071.2
Curacao	316.3	31.3	347.6
Dominican Rep.	14,539.3	2,805.7	17,345.0
Ecuador	-	5,051.1	5,051.1
Guatemala	1,020.1	6,129.3	7,149.4
Haiti	1,912.1	-	1,912.1
Hawaii	1,547.4	616.3	2,163.7
Honduras	2,583.5	920.1	3,503.6
Jamaica	445.2	8,286.1	8,731.3
Japan	2,108.9	22,227.7	24,336.6
Nicaragua	430.6	11,849.3	12,279.9
Panama	72.8	93.3	166.1
Philippine Is.	15,019.8	100,296.6	115,316.4
Puerto Rico	13,033.7	12,490.6	25,524.3
Salvador	2,359.3	1,163.8	3,523.1
Trinidad	54.6	80.0	134.6
Venezuela	16,076.0	2,004.8	18,080.8
England	73,622.1	43,623.0	117,245.1
Argentina	80,745.7	155,855.0	236,600.7
Brazil	98,460.5	65,312.6	163,773.1
Mexico	97,878.0	271,750.3	369,628.3
Peru	4,543.9	1,303.7	5,847.6
Uruguay	9,112.7	10,639.6	19,752.3
GRAND TOTAL	573,234.2	793,479.3	1,366,713.5

CELLOPHANE - 1 9 3 6

Total Pounds

C O U N T R Y	P.T.	M.T.	TOTAL
Mexico	111,466.5	412,892.1	524,358.6
El Salvador	2,947.7	140.0	3,087.7
Nicaragua	355.0	9,651.8	10,006.8
Costa Rica	1,270.8	16,972.4	18,243.2
Panama	36.3	9.3	45.6
Cuba	67,392.3	6,778.2	74,170.5
Haiti	3,247.3	-	3,247.3
Jamaica	-	14,514.6	14,514.6
Trinidad	282.6	-	282.6
Curacao	13.0	35.2	48.2
Philippine Is.	6,583.4	61,163.3	67,746.7
Puerto Rico	13,325.7	272.5	13,598.2
Hawaii	2,252.2	2,395.3	4,647.5
Guatemala	730.7	9,117.9	9,848.6
Bermuda	-	118.0	118.0
Honduras	4,427.6	1,190.4	5,618.0
Dominican Rep.	12,655.7	6.0	12,661.7
British Guiana	234.1	-	234.1
Miscellaneous	34.7	7,821.2	7,855.9
Colombia	141,697.5	58,089.1	199,786.6
Brazil	42,103.6	69,339.1	111,442.7
Argentina	5,414.1	2,095.8	7,509.9
Chile	1,925.9	6,960.2	8,886.1
Ecuador	631.5	6,217.1	6,848.6
Peru	2,874.9	2,878.8	5,753.7
Venezuela	17,848.4	730.2	18,578.6
Uruguay	1,905.4	1,033.8	871.6
Japan	98.8	21,806.0	21,904.8
England	251,038.5	881,840.2	1,132,878.7
GRAND TOTAL	681,966.0	1,587,809.3	2,269,775.3

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Total Pounds

[illegible]	P.T.	A.T.	TOTAL
[illegible]	154,304.5	586,396.8	740,701.3
[illegible]	6,973.3	23,089.6	30,062.9
[illegible]	695.4	18,344.4	19,039.8
[illegible]	3,530.0	32,517.9	36,047.9
[illegible]	1,197.4	179.0	1,376.4
[illegible]	111,245.3	18,067.2	129,312.5
[illegible]	5,108.4	-	5,108.4
Jamaica	-	48,413.6	48,413.6
Trinidad	206.5	1,442.8	1,649.3
[illegible] Indies	34,124.8	43,936.5	78,061.3
Puerto Rico	14,851.9	5,263.6	20,115.5
[illegible]	4,183.7	10,450.5	14,634.2
[illegible]ala	12,352.6	21,408.6	33,761.2
Bermuda	-	159.4	159.4
Honduras	7,342.3	5,345.3	12,687.6
Dominican Rep.	14,798.5	2,438.8	17,237.3
Miscellaneous	-	16,259.5	16,259.5
Colombia	175,652.1	249,153.7	424,805.8
British Guiana	357.1	159.2	516.3
Surinam	2,033.5	1,051.8	3,085.3
Brazil	191,650.8	190,074.5	381,725.3
Argentina	131,139.4	306,749.1	437,888.5
Chile	12,196.8	35,189.6	47,386.4
Ecuador	4,178.2	6,526.2	10,704.4
Peru	2,393.9	4,238.2	6,632.1
Venezuela	24,908.2	3,436.9	28,345.1
Uruguay	6,435.1	4,450.4	10,885.5
Japan	-	7,905.5	7,905.5
England	266.6	7,003.4	7,270.0
GRAND TOTAL	922,126.3	1,649,652.0	2,571,778.3

Clearance - 1 9 4 0

Total Pounds

C O U N T R Y	P.T.	n.T.	TOTAL
Bolivia	2,063.5	1,578.8	3,642.3
British Guiana	44.1	443.2	487.3
Canary Islands	4,075.0	-	4,075.0
Chile	25,161.4	28,208.6	53,370.0
Colombia	166,787.8	211,386.1	378,173.9
Costa Rica	3,223.4	22,563.4	25,786.8
Cuba	109,611.7	39,604.0	149,215.7
Dominican Rep.	18,947.8	2,163.3	21,111.1
Egypt	41,774.0	-	41,774.0
Ecuador	3,170.5	12,821.6	15,992.1
Guatemala	8,408.5	17,740.2	26,148.7
Haiti	1,865.3	-	1,865.3
Hawaii	4,989.5	28,883.7	33,873.2
Honduras	4,125.9	13,290.0	17,415.9
Iceland	871.6	-	871.6
Jamaica	-	19,779.8	19,779.8
Japan	36.0	2,995.2	3,031.2
Java	-	60,237.2	60,237.2
Liberia	45.5	-	45.5
Nicaragua	330.3	2,032.5	2,362.8
Panama	1,030.0	764.4	1,794.4
Philippine Is.	47,141.4	76,324.7	123,466.1
Portugal	1,295.3	-	1,295.3
Puerto Rico	21,908.3	8,065.7	29,974.0
Salvador	8.527.7	9,040.4	17,568.1
South Africa	-	2,443.8	2,443.8
Surinam	-	754.6	754.6
Venezuela	42,852.5	9,701.5	52,554.0
Miscellaneous	1,309.0	11,257.5	12,566.5
Argentina	319,420.0	589,911.8	909,331.8
Brazil	153,372.0	149,803.1	303,175.1
Mexico	208,107.6	268,599.2	476,706.8
Paraguay	1,347.0	-	1,347.0
Peru	7,661.2	7,802.4	15,463.6
Uruguay	22,072.8	5,997.0	28,069.8
GRAND TOTAL	1,231,576.6	1,604,193.7	2,835,770.3

CELLOPHANE - 1 9 4 1

Total Pounds

C O U N T R Y	P.T.	M.T.	TOTAL
Angola	1,950.9		1,950.9
Bermuda	-	109.9	109.9
Bolivia	351.3	2,288.0	2,639.3
British Guiana	-	2,371.6	2,371.6
Canary Islands	3,007.0	-	3,007.0
Chile	27,254.9	44,217.6	71,472.5
China	5,243.7	422.0	5,665.7
Colombia	377,937.0	319,013.3	696,950.3
Costa Rica	10,085.8	17,863.0	27,948.8
Cuba	186,382.2	44,012.6	230,394.8
Curacao	-	1,852.1	1,852.1
Dominican Rep.	24,877.5	878.6	25,756.1
Egypt	30,841.4	2,611.9	33,453.3
Ecuador	3,149.9	14,183.2	17,333.1
Guatemala	11,027.0	29,882.2	40,909.2
Haiti	3,222.2	-	3,222.2
Hawaii	8,962.4	41,715.5	50,677.9
Honduras	10,346.4	12,409.7	22,756.1
Japan	-	283.8	283.8
Java	38,602.1	68,483.6	107,085.7
Liberia	94.7	-	94.7
Martinique	-	1,432.4	1,432.4
Morocco	373.0	-	373.0
Nicaragua	3,092.8	6,000.1	9,092.9
Palestine	-	711.0	711.0
Panama	1,375.1	1,434.3	2,809.4
Philippine Is.	95,855.1	88,790.4	184,645.5
Portugal	26,656.3	2,816.6	29,472.9
Port. E. Africa	1,125.6	-	1,125.6
Puerto Rico	27,203.9	10,273.2	37,677.1
Salvador	17,508.5	12,641.3	30,149.8
South Africa	15,724.8	19,712.6	35,437.4
Surinam	758.9	1,061.9	1,820.8
Venezuela	115,038.2	13,265.2	128,303.4
Dutch Guiana	-	1,223.2	1,223.2
Miscellaneous	1,651.7	25,191.4	26,843.1
Argentina	104,962.1	310,201.3	415,163.4
Brazil	358,043.0	240,224.3	598,267.3
Mexico	333,952.5	542,517.0	876,469.5
Peru	10,094.1	7,749.3	17,843.4
Uruguay	26,790.3	2,742.6	29,532.9
Grand TOTAL	1,884,342.3	1,890,586.7	3,774,929.0

GOV'T EXHIBIT NO. 1087
Civil Action 1216

THIS AGREEMENT has been concluded on second day of May 1929, between KALLE & CO. AKTIENGESELLSCHAFT, a German corporation having its corporate situs and main office at Wiesbaden-Biebrich (Germany) and herinafter called " Kalle ", of the one part, and the DU PONT CELLOPHANE COMPANY, INC., a corporation in the State of Delaware, having its principal office in Wilmington, Delaware, and hereinafter called " DUPONT ", of the other part.

1.

Kalle and its successors and DuPont and its successors agree to communicate at all times to each other all experiences discoveries and inventions made in their plants by their technical experts, with reference to the production, treatment, operation or use of cellulose hydrate in sheet or ribbon form produced from viscose (cellophane registered trade mark) and which for instance in any way change the appearance, the shape or the characteristics of the cellophane; it being understood and agreed that discoveries and experiences shall include all newly found or applied facts, regardless of whether the same shall be patented or not, and it is also understood and agreed that each party shall have the right, trough its authorized representatives, to visit any plant of the other party in which the objects of this agreement are being manufactured.

2.

All discoveries, experiences and inventions referred to in this agreement shall be communicated to the other party by the party discovering the same immediately after their discovery.

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3.

Both parties to this agreement shall be entitled to the free use, in their industries, of all discoveries, experiences and inventions, exchanged under this agreement.

4.

In the event that any experience, discovery or invention received by either party hereto from the other shall not be patented, or protected in any other way, then the party receiving the same shall be entitled to the use thereof without cost or expense, but should any such discovery, experience or invention be protected by patent or in some other way, in the State where it is manufactured or sold, then the party receiving the same shall assume all expenses arising from the use of said patent and the maintenance thereof in its territory, and this provision shall be effective whether such patent rights shall be the property of either of the parties hereto, or whether the right to use such discoveries, experiences or inventions shall arise out of a license from a third party.

5.

All information, discoveries, facts and data received by either party from the other pursuant to the terms and conditions of this agreement shall be treated as confidential and shall not be disclosed to any person, firm or corporation whatsoever, except in so far as such disclosure shall be necessary for the persons who are engaged in working the object or in order to obtain sufficient and proper patent protection.

6.

Each party agrees with the other that it will use its bests efforts to promote and facilitate the procurement of patents with respect to inventions, discoveries or experiences exchanged under this agreement, and each party shall make all

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other documents from the Inventor, and to everything necessary or requisite to be done in order to protect said inventions, discoveries or experiences in the country where the same are to be used.

7.

If either party shall acquire any discovery, information or invention, in patents or licenses from other parties for their exclusive use, then such party shall use its best efforts to make any such discovery, information, patent or license available for the use of the other party, and shall endeavour to secure from the third party from whom the same shall be acquired, all necessary agreements or undertakings in order to make the same available to the other party in its territory.

8.

Neither Kalle nor DuPont will, without the assent of the other party, permit a patent allotted by one party to the other to lapse in consequence of non-use or non-payment of dues.

9.

This agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties hereto, and each party agrees to bind said successors and assigns to a full and complete performance of all of the terms thereof; it being understood and agreed that the term " Successors and Assigns " within the meaning hereof shall be deemed to include any and all persons, parties, firms or corporations to whom the business and plants of either party hereto shall be transferred, whether by sale, inheritance, lease or demise.

10.

This agreement shall remain in full force and effect for a period of twenty years from the 1st day of January, 1929, and from year to year thereafter unless either party by notice in writing given at least three months prior to the expiration

of any calendar year shall terminate the same, in which event, upon receipt of such notice and the expiration of said three months period, this agreement and all rights, duties and obligations of either party hereunder shall come to an end; provided always that the rights of both parties in and to all inventions, experiences, information and discoveries transmitted by either party to the other herunder, and in and to any license granted by either party to the other concerning the same, prior to the date of such termination, whether granted free of charge or otherwise, shall be and remain in full force in the same manner and with like effect as though this agreement had not been terminated.

IN WITNESS WHEREOF the parties hereto have caused this agreement to be executed by their officers, duly authorized, and their respective corporate seals to be hereunto affixed on the seventh day of May, 1929, Wiesbaden-Biebrich.

KALLE & CO. AKTIENGESELLSCHAFT

By Dr. Albers

ATTEST:

Luise Hagemann

DU PONT CELLOPHANE COMPANY, INC.,

By L. A. Yerkes - Pres -

ATTEST:

Asst Secy

GOV'T EXHIBIT NO. 1091
Civil Action 1216
Cells-
A-22

NOTED
O. E. A.

DU PONT CELLOPHANE COMPANY, INC.

3 PARK AVENUE
NEW YORK CITY

October 30th, 1929.

Mr. O. E. Adamson
Secretary & Treasurer
BUFFALO OFFICE

Subject: Du Pont Cellophane Company Technical Agreement with Kalle & Company.

In connection with the agreement entered into under date of May 9th between Du Pont Cellophane Company, Inc., and Kalle & Company, you are advised as a matter of record that the territories in which Kalle & Company have an exclusive license, as given to us by Mr. Rene Bernheim in his letters to us of August 6th and October 11th, are as follows:

Germany	Roumania
Austria	China
Hungary	Denmark
Czechoslovakia	Sweden
Jougo-Slavia	Norway
Poland	Finland
Russia	

He states furthermore that the above list includes all countries bordering Russia and belonging before the war to Russia (Esthonie, Lithuanie, Lettonie).

The agreement, for obvious reasons, does not include the territorial limits, and it is suggested that this letter be attached to the copy of agreement for our future guidance.

In this connection, attention is also called to the fact that in a previous communication, the country of Switzerland was erroneously included, and Sweden was omitted.

It is probably also well to mention that the territory in which Kalle & Company have an exclusive license is not the same for the Capes-Viscose business, and that if and

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AT 1425

when technical agreement will have been formally executed for caps and bands, the territorial limitations will be set forth in a separate letter.

C M Albright

C M Albright

VICE-PRESIDENT.

CMA-K
cc: Mr. J. E. Hatt, G.M. Cellophane Department
Mr. F. C. Hess, Assistant Secretary
Mr. F. M. Pralatowski, Director of Patents, Buffalo
Miss M. C. Lepper

1425

GOV'T EXHIBIT NO. 1099
Civil Action 1216

~~Mr. C. M. Albright~~
CC: Mr J. E. [illegible]
M F. G. Hess
Mr. W. S. Pritchard

March 20, 1933

March 20, 1933

Kalle & Company

Kalle & Company
Patent-Abteilung
Wiesbaden, Biebrich
GERMANY

Gentlemen:

We are pleased to inform you that Danish Patent 46,957 has issued on an application corresponding to Church and Prindle, U.S. 1,737,187, for the parent moistureproofing invention.

Danish Patent

parent moistureproofing

This patent issued on an application filed after the expiration of the convention period and after the publication of French Patent 647,550 on November 22, 1928 for the same invention. The patent, therefore, may not be entirely valid and may have only a nuisance value.

The patent stands assigned to the Du Pont Cellophane Company, but since Denmark is one of your countries, you have an implied license thereunder. If you should desire a specific license, please advise us.

We would be pleased to have your views as to the value of the patent and as to whether or not you will exercise your implied license and endeavor to maintain the patent.

Truly yours

F. M. Pralatowski
DIRECTOR OF PATENTS

FMP:EK
TF

P.S. Mr. Hess is correct in pointing out that Kalle does not desire a specific license in cases such as this. It is true that Mr. Albright's letter of February 16, 1932 is quite restricted to Czecho-Slovakia. On the other hand, Kalle's letter of December 8, 1931, which prompted the discussion, is general as to all countries where the patent issues in the name of Du Pont Cellophane. We completely overlooked the special treatment of the early cases.

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P.S. (Continued)

Mr. Pritchard will, as a result of a copy of this letter, ignore our request for a draft of the specific license for Denmark.

F.M.P.

F.M.P.

GOV'T EXHIBIT NO. 1109
Civil Action 1216

DU PONT CELLOPHANE COMPANY, INC.

DU PONT

350 Fifth Avenue — New York, N. Y.

May 17, 1935.

COPY TO:

J. E. Hatt, G.M. "Cellophane" Dep't.
(M. du Pont Lee, G.M. Technical Dep't.
(F. M. Pralatowski, Director Patent Service,
Technical Dep't.
R. M. Horsey, Director Development Div.,
Technical Dep't.
J. K. Jenney, Director Foreign Relations Dep't.) Wilmington.
C. R. Midge, Director Legal Dep't.)
H. H. Ewing, Mgr. London Office

TO: C. M. Albright, Secretary (2).

TECHNICAL AGREEMENT WITH BRITISH CELLOPHANE LIMITED:

Attached hereto is completely executed copy of agreement, entered into with British Cellophane Limited, covering "manufacture production treatment and operation or use of sheets and films made from viscose". The agreement bears the date of May 3, 1935, although our Company first executed it under date of April 12, 1935.

The term of the agreement is specified as 20 years from January 1, 1935, and from year to year thereafter unless either party give notice in writing at least three months prior to the end of any calendar year after 1954.

Please acknowledge receipt on the attached extra copy of this letter.

Mr. May forwarded a copy of the agreement recently to Mr. Pralatowski, which copy is complete with exception to the record of the signatures on the part of British Cellophane Limited. We are sending copy of the agreement with copy of this letter to Messrs. Hatt, Lee, Jenney, Midge, and Ewing.

F. G. HESS,
Ass't Secretary.

1-2
enclosures

C O P Y

AN AGREEMENT made the third day of May One thousand nine hundred and thirty five B E T W E E N DU PONT CELLOPHANE COMPANY, INCORPORATED, a corporation registered in the State of Delaware, having its principal office in New York, New York State (hereinafter called "Du Pont") of the one part and BRITISH CELLOPHANE LIMITED, a Company incorporated under the Laws of England and having its registered office at 179 Tottenham Court Road in the County of London (hereinafter called "the British Company") of the other part

W H E R E A S :-

(1) The parties hereto are interested in the business of the manufacture production treatment and operation or use of sheets and films made from viscose (hereinafter referred to as "the said process") and are the registered owners of or otherwise entitled to certain Letters Patent and/or Licenses granted under Letters Patent in connection with or relating to the said process and are also entitled to the benefit of various Agreements (hereinafter referred to as "the Reciprocity Agreements") which have been entered into between them and divers other Companies associated with them for the purpose of intercommunication of information relating to the said process

(2) The parties hereto agree that it is to their respective mutual advantage and benefit that there should be a free and full exchange of information with respect to experiences discoveries patents processes inventions improvements methods of manufacture and production and developments whether patented or not that have been or may hereafter be made acquired or discovered by or communicated to them or to which they are now or may hereafter become entitled in connection with the said process or by virtue of the Reciprocity Agreements

Now in consideration of the mutual agreement and obligations hereinafter contained IT IS HEREBY AGREED by and between the parties hereto as follows:-

1. Du Pont and its successors and the British Company and its successors shall subject to the provisions of Clause 7 hereof communicate at all times to each other full particulars of all methods of working the said process as are now or which may at any time hereafter be used by them or to the benefit of which they are now or may at any time hereafter be entitled together with all necessary directions with regard to the mode of working the same and also of all their experiences discoveries improvements processes developments and inventions which have heretofore been or which may at any time hereafter be made in their works or elsewhere in relation to the said process as well as of any experiences

discoveries improvements developments processes patents and inventions that have been or may hereafter be communicated to them or of any rights in respect of which they have or may become entitled in connection with the said process under or by virtue of the Reciprocity Agreements or in any other manner whatsoever and shall respectively at all times have the right on giving previous notice to the other to inspect any works or plant of the other party by any person nominated by it for the purpose and to examine and have explained to it all requisite details in relation to the methods and processes employed therein in relation solely to the manufacture and preparation of sheets and films by the said process

2. All discoveries experiences improvements developments inventions patents processes and information referred to in this Agreement (all or any of which are hereinafter referred to as "the matters aforesaid") shall in so far as either of the parties hereto have already acquired rights therein or become entitled thereto be communicated forthwith to the other party by the party which has acquired such rights or become entitled thereto while in regard to any of the matters aforesaid which may hereafter be made discovered or acquired by either party or to which either party may hereafter become entitled the same shall be communicated to the other party by the party so making discovering acquiring or otherwise becoming entitled to the same immediately thereafter

3. BOTH parties to this Agreement shall except as hereinafter mentioned be entitled in their respective territories to the free use for the purposes of the said process of all the matters aforesaid which are communicated to them pursuant to this Agreement

4. SHOULD any of the matters aforesaid be protected by patent in any Country and/or State where it may be made use of by the party to which the same is communicated such party shall if it make use thereof be entitled (subject to the terms of Clause 7 hereof) to the exclusive right to make use and exercise the invention the subject matter of any such Patent in such Country and/or State for the manufacture production treatment and operation or use of sheets and films made from viscose and shall in that event assume all expenses arising from the use of the said patent and the maintenance thereof and this provision shall be effective whether such patent rights shall be the property of either of the parties hereto or whether the right to use the matters aforesaid shall arise out of a license from a third party

5. ALL information discoveries facts and data as to the matters aforesaid received by either party from the other pursuant to the terms and conditions of this Agreement shall be treated as confidential and shall not be disclosed to any person firm or corporation whatsoever save La Cellophane S.A. of Paris Kalle & Co. of Wiesbaden and the Licensees of them or either of them and Canadian Industries Limited of Canada except in so far as such disclosure shall be necessary for the persons who are engaged in applying the information facts and data so received or in order to enable the party to this Agreement so receiving the same to obtain sufficient and proper patent protection in its territory or any part thereof which it shall be entitled to do

6. EACH party agrees with the other that it will use its best efforts to promote and facilitate the procurement of patents with respect to the matters aforesaid exchanged under this Agreement and each party shall at the written request of the other party make all necessary applications procure all necessary assignments or other documents from the Inventor or from any other necessary party and do every thing necessary or requisite to be done in order to enable the party entitled to make use of the matters aforesaid pursuant to this Agreement to protect the same by obtaining Patents therefor in any Country and/or State where the same may be used by such party If the party to which the matters aforesaid are communicated by the other party obtains such patents it shall be entitled thereto but if it decides not to obtain such patents or if having obtained such patents it subsequently decides not to keep the same in force - it shall in writing notify the other party by whom the matters aforesaid shall have been communicated of such decision in order that such other party may if it so desires endeavor to obtain such patent for any such Country and/or State or (as the case may be) keep in force any such patent which may already have been granted.

7. IF the matters aforesaid shall have been acquired by or granted to either party from or by third parties for their use then such party shall use its best efforts to arrange for similar rights to be made available for the use of the other party for the purposes of the said process in its territory and shall endeavor to secure from the third party from whom the same shall be acquired all necessary agreements or undertakings in order to make

the same available to the other party in its territory as aforesaid and Du Pont hereby consents to and confirms the grant by La Cellophane S.A. of Paris to the British Company of sub-licenses under British Letters Patent Number 283109 and Number 380483 Du Pont further agrees that the British Company shall be at liberty if and when so advised to prosecute proceedings for infringement or defend proceedings for revocation in respect of the said British Letters Patent or either of them and/or in respect of any other patents in reference to which du Pont may at any time grant licenses to the British Company for any part of its territory the British Company agreeing to indemnify Du Pont from and against the costs of any such proceedings The British Company also hereby agrees to grant (mutatis mutandis) similar privileges to Du Pont in respect of any patents in connection with which the British Company may grant licenses to Du Pont for its territory or any part thereof Du Pont also agreeing to keep the British Company indemnified from and against the costs of any such proceedings .

8. THIS Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties hereto and each party agrees to bind the said successors and assigns to a full and complete performance of all the terms thereof it being understood and agreed that the term "successors and assigns" within the meaning hereof shall be deemed to include any and all persons parties firms or corporations to whom the business and plants of either party hereto shall be transferred whether by sale inheritance lease or demise.

9. THIS Agreement shall remain in full force and effect for a period of Twenty Years from the First Day of January One Thousand nine hundred and thirty five and from year to year thereafter unless either party by notice in writing given at least three months prior to the expiration of any calendar year after the expiration of the said period of Twenty Years shall terminate the same in which event upon receipt of such notice and the expiration of said three months' period this Agreement and all rights duties and obligations of either party hereunder shall come to an end without prejudice to the rights or remedies of either party against the other in respect of any breach of this Agreement prior to the termination thereof provided always that the rights of both parties in and to all inventions experiences information and

discoveries transmitted by either party to the other hereunder and in and to any license granted by either party to the other concerning the same prior to the date of such termination whether granted free of charge or otherwise shall be and remain in full force in the same manner and with like effect as though this Agreement had not been terminated

10. FOR the purposes of this Agreement the territory of Du Pont and of the British Company shall be deemed to be as follows vide licet:- as to Du Pont North and Central America, Philippine Islands and American possessions in the Pacific and any British territory part of North and Central America and all West Indes excepting those islands which are owned by Great Britain and other European countries As to the British Company the British Empire (which expression includes India British Dominions and Colonies but does not include Egypt any mandated territories or that portion of the British Empire reserved to Du Pont as defined above)

IN WITNESS whereof Du Pont Cellophane Company, Incorporated has caused this Agreement to be executed by its officers duly authorized and its Corporate Seal to be hereunto affixed and British Cellophane Limited has caused its Common Seal to be hereunto affixed the day and year first above written

THE CORPORATE SEAL of Du Pont Cellophane Company, Incorporated was affixed hereto in the presence of (SEAL)

(s) L. A. Yerkes
President.

(s) F. G. Hess.
Ass't. Secretary.

O.K.
S.M.S.

From Approved
Legal Department

(s) H. G. Haskell
Ass't. Director

THE COMMON SEAL of British Cellophane Limited was affixed hereto in the presence of (SEAL)

(s) Hammond Bisot } Director

(s) W. G. Higgins Secretary.

GOV'T EXHIBIT NO. 1132
Civil Action 1216

CC: Mr. F.M. Prall

(File copy in Trans Tech. Inf. 1943 For Ret. Bull.)

DU PONT
ESTABLISHED 1802

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE

RAYON DEPARTMENT
COMPRISING
ACETATE DIVISION
CELLOPHANE DIVISION
NYLON DIVISION
RAYON DIVISION

July 24, 1943

Miss Esther Clark
Technical Data Section
FOREIGN RELATIONS DEPARTMENT

APPLICATION FOR RENEWAL OF LICENSE TO SEND TECHNICAL INFORMATION TO:
British Cellophane Ltd.
Bath Road
Bridgewater, England

We take from your letter of July 20, 1943 that Special License T-16541 expires on August 3, 1943. We are presenting herewith our reply to the eight questions which you asked in your letter of July 20, 1943.

1) Generally what need exists for the license.

In accordance with an agreement with British Cellophane Ltd. of May 3, 1933, we are under contractual obligation to exchange technical information on the manufacture and use of cellophane, including the application of a moistureproof coating.

2) Whether the technical information is to be exported for general information purposes only or for specific application to a specific situation.

The technical information is to be exported for general information within British Cellophane Ltd. It may cover any number of different subjects pertaining to the manufacture and use of cellophane.

3) Whether the information is to be used in connection with any new installations, developments, or projects.

The information is not to be used specifically in connection with any new installations, developments or projects but this may occur in the course of exchange of technical information over a period of time.

4) Whether the technical information is required for the National Defense, public health, or safety of the country of destination.

Cellophane is being used in many instances for purposes of National Defense, public health and safety in the United States; consequently, some of the technical information may apply to similar phases in regard to the country of destination.

C-4029

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5) Whether the information is required by public service corporations.
Not specifically.

6) Whether the technical data is to be used in connection with any military, naval, or other installation which will tend to aid in the prosecution of the war.

Not specifically although there are many cellophane uses which tend to aid in the prosecution of the war, such as the packaging of Ordnance equipment, food rations, etc.

7) Whether the technical data will be used to produce and export needed material to the United States or to one of the United Nations.

Conceivably as indicated under (6). No concrete data available on this point.

8) Whether the technical data will be used in the production of any material that is to be exported from the country of destination and if so to what country.

Conceivably but we have no information on the subject at this time.

Manfred Keller
SPECIAL ASSISTANT

MK:C
Enclosure(Return of file)

GOV'T EXHIBIT NO. 1134
Civil Action 1216

CC: Mr. C. E. Coleman - Buffalo
Dr. G. M. Karns - Rayon Dept., Wilm.

Buffalo, New York
January 5, 1945

Miss Helen C. Parks
Miss Helen C. Parks
Cellophane Research
Buffalo

REPORTS

REPORTS FOR FOREIGN ASSOCIATES

We are to resume sending reports to European associates. Dr. Karns is going to handle these contacts but it is necessary for us to furnish him with three copies of all your reports.

Your reports will primarily be of interest to B.C.L. but there may be instances where extracts of them will be made for V.D.L. and I.C.I. Accordingly, we will send Dr. Karns three copies of the Analytical reports; two for submission to B.C.L. and one to be used in making any pertinent extracts for V.D.L. and I.C.I.

CELLOPHANE RESEARCH

William L. Hyden

WLH:JA
tf

C-10186

GOV'T EXHIBIT NO. 1143
Civil Action 1218

THIS AGREEMENT, made as of the 24th day of December 1936, between

IMPERIAL CHEMICAL INDUSTRIES, LIMITED, a corporation organized and existing under the laws of Great Britain, hereinafter called "I.C.I.",

E. I. du PONT de NEMOURS & COMPANY, a corporation organized and existing under the laws of Delaware, United States of America, hereinafter called "du Pont", and

CANADIAN INDUSTRIES LIMITED, a corporation organized and existing under the laws of the Dominion of Canada, hereinafter called "C.I.L.",

W I T N E S S E T H :

WHEREAS the parties hereto are engaged in the development, manufacture and sale of a broad line of chemicals and chemical products, and maintain research and development organizations for the purpose of expanding and improving their present activities and products as well as developing new industries; and

WHEREAS I.C.I. and du Pont separately own substantial amounts of the capital stock of C.I.L., and it is desired that the latter be entitled to utilize the patented and secret inventions of I.C.I. and du Pont, and that said stockholders be entitled to utilize the inventions of C.I.L.; and

WHEREAS the parties have either directly or through their predecessors entered into two agreements, dated January 1, 1925 and January 1, 1926, granting rights in their respective inventions, which agreements have been supplemented by informal interpretations, understandings and practices of the parties; and

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WHEREAS it is desired to redefine and to embody in one instrument the terms of said contractual relationship;

NOW, THEREFORE, in consideration of the promises and of the covenants hereinafter set forth, the parties have agreed as follows:

I. DEFINITIONS.

As used herein -

(1) The term "inventions" shall be deemed to mean inventions, processes and technical information, whether patented or secret.

(2) The term "British Empire" shall be deemed to mean all present and future countries, colonies, possessions and mandated territories thereof, inclusive of Egypt but exclusive of Canada and Newfoundland.

(3) The term "United States" shall be deemed to mean the United States of America and all present and future countries, colonies, possessions and mandated territories thereof and the Philippine Islands.

(4) "Central America" shall be deemed to comprise the region between North and South America, extending from about N. latitude 7° to N. latitude 18°, that is from Colombia to Mexico, between the Caribbean Sea and the Pacific Ocean.

(5) The "West Indies" shall be deemed to comprise the groups of islands lying off the southeast coast of North America and extending from near the coast of Venezuela northward to the latitude of North Carolina, exclusive of British possessions.

(6) An invention shall be deemed to be "controlled" by any party hereto, whenever such party shall be able to grant rights thereunder, as provided herein, within the territory or territories of the other parties.

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(7) The term "subsidiary company" shall be deemed to mean any company in which any party hereto owns or controls a majority of the outstanding voting stock, and any company similarly owned or controlled by any subsidiary or subsidiaries; provided, however, that Remington Arms Co., Inc. shall not be deemed to be a subsidiary of du Pont for the purposes of this agreement.

(8) Wherever reference is made to any party hereto, it shall be deemed to include the present and future subsidiary companies of said party, so long as the latter's ownership or control thereof continues.

(9) The term "principals" means I.C.I. and du Pont.

II. GRANT OF RIGHTS TO C.I.L.

(a) I.C.I. shall grant to C.I.L., upon request, the exclusive right to practice any and all inventions now or during the term of this agreement owned or controlled by I.C.I., relating to the products listed in Article IV hereof under categories A, C and D, and to make, use and sell any and all of said products embodying such inventions, within the Dominion of Canada and the Colony of Newfoundland.

(b) Du Pont shall grant to C.I.L., upon request, the exclusive right to practice any and all inventions now or during the term of this agreement owned or controlled by du Pont, relating to the products listed in Article IV hereof under categories B, C and D, and to make, use and sell any and all of said products embodying such inventions, within the Dominion of Canada and the Colony of Newfoundland.

(c) The aforesaid grants by I.C.I. shall confer no right on du Pont, and the aforesaid grants by du Pont shall confer no right on I.C.I. to practice said inventions or to make, use or sell the products embodying the same.

III. GRANT OF RIGHTS BY C.I.L.

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(a) C.I.L. shall grant to I.C.I., upon request, the

right to practice any and all inventions now or during the term of this agreement owned or controlled by C.I.L., other than those relating to the products classified in Article IV under category B, and the right to make, use and sell any and all products embodying such inventions; which rights, except as otherwise provided in paragraph (c) below, may be exercised within the following territories:

(1) The rights so granted with respect to inventions relating to products classified under category A of Article IV may be exercised throughout the world, excepting Canada and Newfoundland;

(2) The rights so granted with respect to inventions relating to other products may be exercised throughout the world, excepting Canada, Newfoundland, United States, Mexico, Central America, and the West Indies.

(b) C.I.L. shall grant to du Pont , upon request, the right to practice any and all inventions now or during the term of this agreement owned or controlled by C.I.L., other than those relating to the products classified in Article IV under category A, and the right to make, use and sell any and all products embodying such inventions; which rights, except as otherwise provided in paragraph (c) below, may be exercised within the following territories:

(1) The rights so granted with respect to inventions relating to products classified under category B of Article IV may be exercised throughout the world, excepting Canada and Newfoundland;

(2) The rights so granted with respect to inventions relating to other products may be exercised throughout the world, excepting Canada, Newfoundland, and the British Empire.

(c) The licence territories of I.C.I. and du Pont, notwithstanding the foregoing descriptions, shall conform to their respective licence territories as defined in the agreement between said parties dated July 1, 1939, and in any existing and future supplements thereto, insofar as the latter licence territories may apply to inventions relating to any groups of processes and products covered herein.

(d) The rights granted to each of the principals under this Article shall be exclusive, subject to the rights granted hereunder to the other principal.

IV. PRODUCTS.

(a) The rights granted by I.C.I. and du Pont under this agreement shall apply initially to inventions relating to the products listed below according to the following categories:

A - Those in which I.C.I. and C.I.L. are engaged.
B - Those in which du Pont and C.I.L. are engaged.
C - Those in which all parties are engaged.
D - Those in which C.I.L. alone is engaged.

PRODUCTS	CATEGORY
COATED TEXTILES GROUP	
Pyroxylin coated and/or impregnated or laminated fabrics	C
Rubber coated and/or impregnated or laminated fabrics	C
Tontine	B
Artificial suede	C
CELLULOSE FILM GROUP	
Transparent regenerated cellulose film in rolls and sheets in all grades	B
Moistureproofing lacquers for coating films and papers	B
Viscose	B
PLASTICS GROUP	
Articles manufactured from pyroxylin and cellulose acetate plastics in sheets, rods and tubes and from vinyl acetate moulding powders	B
Combs from hard rubber	B
Composite sheeting for collars, cuffs, toilet-ware and handbags	B
FINISHES GROUP	
Synthetic Resin Finishes	C
Alkyd resins	C
Adhesives, including pyroxylin cement	C
Cleaners	C
Driers	C
Enamels	C
Lacquers	C
Paints	C
Polishes	C
Fillers, including "Plastic Wood"	C
Stains	C
Thinner Mixtures	C
Varnishes	C
Waxes	C

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PRODUCTS	CATEGORY
FERTILIZERS (AND INSECTICIDES) GROUP	
Mixed Fertilizers	A
*Ammonium Phosphate	C
*Lead Arsenate	C
*Calcium Arsenate	C
Super-Phosphate and *Ammoniated Super-Phosphate	C
Acidulated Bone Char	D
Ground Phosphate Rock	C
Soil Insecticides:	
Coke and Naphthalene Hop Spray Mixture	D
Lime and Copper Sulphate	B
Mineral Stock Food	D
Lime-Sulphur Spray	C
Sodium Arsenite	C
Calcium Bisulphite	A
Recrystallized Muriate of Potash	D
EXPLOSIVES GROUP	
Ammonium Nitrate	C
Blasting Caps, plain and electric; delay action	C
Blasting Explosives	C
Blasting Supplies and Accessories	C
Charcoal	C
Covered Wire	C
Dinitrotoluol	C
Fillers and Absorbents for Explosives	C
Fulminate	C
Glycerine	C
Lead Azide	C
Leadtex Elements	D
Lead Sulphocyanate	D
Lead Styphnate	C
Lighthouse Bombs, Fog Signals	A
Methods and Materials involved in the packing, transport and use of commercial explosives	C
Miscellaneous drawn and pressed metal articles; non-ferrous metal strip, tubes and rods	A
Nitrocotton	C
Nitroglycerine	C
Nitro-di-glycerine	B
Nitro Glycol	C
Nitrated Glycol, Glycerine and Sugar Mixtures	C
~~Paper Tubes~~	~~C~~
Railway Fusees	D
Railway Track Signals	D
Safety Fuse	A
Sporting Powders	C
Styphnic Acid	C
~~Tetracene~~	~~C~~
Trinitrotoluol	C
GENERAL CHEMICALS GROUP	
Acid, Acetic	C
" , Hydrochloric by synthesis of Chlorine and Hydrogen	C
" , Hydrochloric by other methods of manufacture	C
" , Nitric	C
" , Sulphuric	C
Alkali Cleaners	A
Ammonia, Aqua	C

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PRODUCTS	CATEGORY
GENERAL CHEMICALS GROUP (Continued)	
Ammonia, Anhydrous	C
*Ammonium Chloride	C
Ammonia Persulphate	B
*Ammonium Sulphate	C
Anodes, Brass	D
" , Cadmium	R
" , Copper	A
" , Nickel	D
" , Zinc	B
Brine (Sodium Chloride)	A
Buffing Compounds	D
**Caustic Soda	C
Chloride of Lime	A
**Chlorine	C
Copper Carbonate	D
Copper Cyanide	C
Copper Sulphate	D
Ferric Chloride	C
Ferrous Sulphate	R
Glauber's Salt	C
*Higher Alcohol Sulphates	C
Hydrogen	C
Hydrogen Peroxide	C
Magnesium Sulphate	C
Miscellaneous Electroplating and Polishing Equipment and Supplies	D
Nickel Carbonate, Plastic	D
*Nickel Chloride	D
*Perchlorethylene	D
*Plaster of Paris	B
Plating Compounds	R
Polishing Compounds	A
Red Oxide of Iron	A
Salt	C
*Sodium Aluminate	C
Sodium Bisulphate	A
*Sodium Bisulphite	B
Sodium Hypochlorite	B
*Sodium Di Phosphate	C
*Sodium Tri Phosphate	C
*Sodium Mono Phosphate	C
Sodium Nitrite	C
*Sodium Silicate	C
Sodium Sulphate	C
*Sodium Sulphite	C
*Sodium Thiosulphate (Hyposulphite of Soda)	C
Soldering Fluxes	A
*Sulphur	C
Sulphur Dichloride	B
Sulphur Monochloride	B
Sulphur Dioxide	B
Tinning Fluxes	B
*Titanium Pigments	C
*Trichlorethylene	C
Zinc Carbonate	C
Zinc Cyanide	C

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(b) It is the intention of the parties that this Article shall cover all products now or heretofore manufactured by C.I.L. In the interests of convenience such products in some instances have been described broadly by classes, e.g. lacquers, instead of having been enumerated specifically, it being recognized that it is impracticable to make the foregoing list all-inclusive. It is understood that any product not manufactured by C.I.L. at this or any previous time, and not within any class of products listed in Article IV, though it may relate to one of the groups listed above, is not covered initially by this Article but is subject to the provisions of Article V hereof; provided, however, that the products marked with an asterisk (*) have been included in the foregoing paragraphs of this Article, notwithstanding the fact that they are not now manufactured by C.I.L.; and provided further, that du Pont shall not be obligated to grant rights relating to the products marked with a double asterisk (**), in view of C.I.L.'s prior commitment which prevents the granting of rights relating thereto by C.I.L. to du Pont.

V. ADDITIONAL PRODUCTS.

(a) It is hereby declared to be the spirit of this agreement that the exploitation of the inventions and products of C.I.L. and du Pont within the Dominion of Canada and the Colony of Newfoundland shall be conducted through C.I.L. It is agreed, therefore, subject to the exceptions recognized in paragraph (b) of this Article, that whenever either principal shall decide that it is advisable to exploit in said territory any of its inventions relating to products which are not included in Article IV hereof, it shall so advise each of the other parties hereto, and with the consent of such other parties the products so specified shall thereupon and thereafter be treated as and be deemed to be products listed in the appropriate category of said Article IV.

(b) Notwithstanding the spirit and intent expressed in paragraph (a) of this Article, it is recognized that in exceptional instances the interests of either principal may be

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served more advantageously by other procedure. It is agreed, therefore, that either I.C.I. or du Pont may exclude from the operation of this agreement any additional inventions or products the exploitation of which by C.I.L. would be contrary to the best interests of such principal. The exclusions permitted under this paragraph shall be subject to the following restrictions:

(1) No such exclusion shall be made until all the parties hereto shall have been given opportunity fully to discuss the procedure contemplated; provided, however, that notice of pending negotiations with other parties shall be excused if such disclosure would involve breach of confidence reposed by such other parties.

(2) No such exclusion shall be based solely upon the desire of either principal to retain the entire profits (rather than the percentage thereof represented by its stock equity in C.I.L.) to be derived in Canada and Newfoundland from the exploitation of such invention or product; provided, however, that such exclusion may be based on the desire of such principal to manufacture or produce any such product in Canada or Newfoundland, primarily for use or consumption in the manufacturing operations of itself or its subsidiaries.

(3) No such exclusion shall deprive any party of rights to practice specific inventions theretofore conveyed hereunder.

VI. EXCLUDED INVENTIONS.

(a) Governmental objection or prohibition shall be a valid plea on the part of any of the parties to decline to reveal or to convey any rights under an invention which, but for such objection or prohibition, would come within the operation of this agreement. It is further understood and agreed that any party may exclude from the operation of this agreement any invention or secret information which in its opinion relates to products designed primarily for the destruction of human life or property in war.

(b) Any party may exclude from the operation of this agreement any rights under new inventions which it may reasonably

1701

be impelled to grant to others in settlement of pending or threatened patent litigation or interference proceedings, provided, however, that each party shall first advise the other parties of its intention to make such exclusion.

(c) Any invention of I.C.I. or du Pont which relates incidentally to products classified in Article IV hereof but relates primarily to other products, or which covers the use of said classified products in connection with other products, may in the discretion of the party owning or controlling the invention be excluded from the operation of this agreement or the rights thereunder may be so limited as to exclude the right of C.I.L. to use the same in connection with such other products. It is the intention of the parties that such right of exclusion or limitation shall be exercised by either I.C.I. or du Pont only so far as may be reasonably necessary in the interests of the activities or relationships of such party in industries or products which have been excluded from the operation of this agreement pursuant to the provisions of Article V hereof.

VII. RESERVATION OF RIGHTS.

(a) Nothing contained herein shall deny to any grantor the right to sell within the grantee's licence territory any products which do not embody inventions obtained by such grantor from the other parties.

(b) It is further understood that any party may licence its customers to sell any and all products of such party outside its licence territory, insofar as they constitute ingredients or raw materials in the finished goods of such customers, and regardless of whether such products embody inventions obtained from any other party hereto.

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VIII. COMPENSATION.

(a) The parties recognize that an attempt to evaluate and specifically compensate for the rights granted by each of them under this agreement would serve no useful purpose, in view of the following considerations: the fact that the capital stock of C.I.L. is owned largely by the principals in approximately equal proportions; the reasonable probability that the rights granted to and received from C.I.L. by each of the principals generally will be of substantially equal value; the reasonable probability that the value of the rights received by C.I.L. from the principals will exceed the value of the rights granted by it hereunder; and the fact that any such excess value of the rights granted by the principals will accrue to the principals through their stock interests in C.I.L., without the need of specific compensation therefor. It is agreed, therefore, that no royalties or other monetary compensation shall be paid for rights granted hereunder, except as otherwise provided in paragraphs (b) and (c) of this Article.

(b) Whenever any party desires to acquire rights hereunder for any invention which has been obtained by the grantor thereof from others, such party shall reimburse to the grantor such portion of the consideration paid or payable for said invention as is reasonably attributable or allocable to the rights thereunder for the territory of such party. To facilitate the determination of such compensation, any party hereafter contemplating the purchase of rights to an invention within the territory of any other party, shall notify the latter before the conclusion of negotiations therefor, and shall afford to the latter an opportunity to agree in advance upon the amount or basis of consideration for the rights applicable to its territory, unless such disclosure would involve breach of confidence reposed by the other party to such negotiations.

1701

(c) Whenever any party desires to acquire rights hereunder for any invention owned or controlled by a subsidiary company in which one of the other parties owns less than all of the outstanding common stock, it shall be obligated to pay a fair and adequate compensation for such rights; and the parent of such subsidiary shall refund immediately to said party such percentage of said payment as the amount of common stock of the subsidiary held by the parent bears to the total outstanding common stock of the subsidiary.

IX. AID IN OBTAINING RIGHTS.

Each of the parties agrees that in acquiring rights to any invention it will endeavor, if practicable, to obtain rights thereunder which may be extended to the other parties in accordance with the terms hereof; and agrees that if it acquires rights to an invention which are so limited as not to permit of such extension, it will use its best efforts to assist such other party or parties to obtain rights to such invention. No party shall be obligated, however, to purchase at additional cost any right for the benefit of another party hereto, unless the amount or basis of consideration therefor shall have been agreed upon in accordance with paragraph (b) of Article VIII hereof.

X. DISCLOSURE OF INFORMATION.

(a) Each of the parties hereto, as soon as practicable and in any case within six months after the commercial utilization of any invention for which any other party may be entitled to rights hereunder, shall disclose to such other party information in respect thereto, sufficient to enable such other party to determine whether it desires to utilize the same.

(b) Each of the parties, at the request and expense of such other party, shall supply experienced chemists, engineers,

1701

foremen and other experts to assist such other party in investigating, testing, applying or using any invention disclosed as aforesaid; provided, however, that the party called upon for such technical assistance may arrange to furnish same at such time and in such manner as will not materially impede or interfere with its own activities and operations.

(c) Notwithstanding that the disclosure of information to C.I.L. is hereinbefore limited to inventions relating to products and industries included in Article IV hereof and to those additional inventions and products hereafter made available to C.I.L. in accordance with the provisions of Article V hereof, it is hereby declared to be the intention of I.C.I. and du Pont to disclose also to C.I.L. information on inventions relating to other products or industries which come within the scope of C.I.L.'s activities; it being understood, however, that no such disclosures shall convey to C.I.L. the right to practice such inventions.

XI. PATENT PROTECTION.

(a) Each of the parties hereto, as soon as practicable and in any case within six months from the date of the filing of application for letters patent covering any invention for which either or both of the other parties may be entitled to rights hereunder, shall disclose to such other party or parties information sufficient to enable it or them to determine whether it is desirable and practicable to secure patent protection therefor in any country or countries in which it or they may be entitled to practice said invention. The party owning the invention shall at the request of the other party or parties, and may in the absence of such request, cause application or applications for letters patent thereon to be filed in any country or countries in which such other party or parties may be entitled to practice the same.

1701

(b) Neither the grantor nor any grantee of the rights to any invention hereunder shall be bound to defend any letters patent covering the same, but each party agrees, at the request and expense of the other, to assist to the fullest extent in defending or protecting any such letters patent.

(c) Each party shall pay all fees and expenses (not including expenses of litigation) for filing, securing and maintaining any patent application or letters patent in any country in which it may elect to acquire or retain the exclusive right to practice the invention covered thereby; and I.C.I. and du Pont shall pay, in such proportions as they shall mutually determine, all such fees and expenses in any country in which both have been granted rights to the invention so covered.

XII. IMPAIRMENT OF RIGHTS.

Each of the parties agrees not to make or consent to any disclosure or to do or consent to any other act that may impair or depreciate the value of any right granted to it under this agreement, or that may impair or depreciate the value of the right, title and interest retained by any other party in any invention covered hereby. Each party agrees to take all reasonable care to prevent any such disclosure or act, but shall not, in the absence of bad faith or gross negligence, be liable in damages therefor.

XIII. EXISTING AGREEMENTS.

It is hereby recognized that the provisions of this agreement are subordinate and subject to all existing agreements wherever it may conflict therewith. Each of the parties agrees, however, that in negotiating for the renewal of any of such agreements which may expire during the existence of this agree-

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ment, it shall endeavor to effect such renewals on such basis or terms as will harmonize as fully as possible with the provisions of this agreement.

XIV. PARTIES IN INTEREST.

(a) The terms and provisions of this agreement shall apply to the respective subsidiary companies of each of the parties hereto, and each of said parties undertakes and assumes, for and on behalf of its subsidiary companies, all of the duties and obligations of this agreement. To this end each of the parties shall endeavor to obtain promptly from each subsidiary company in which it now or hereafter owns less than all of the outstanding stock, a consent to be bound by the provisions of this agreement.

(b) The benefits and obligations of this agreement shall inure to and be binding upon the parties hereto and their respective legal representatives and successors, and shall not be assigned, transferred or licenced to any party without the consent in writing first obtained from the other parties, except that any party may, with the consent in writing of the original grantor, licence within its territory the rights conveyed hereunder with respect to specific inventions; provided, however, that any rights granted or conveyed hereunder with respect to specific inventions may be assigned or licenced by the grantee to any party with whom it now (and also at the time of such assignment or licence) has a reciprocal agreement which permits the original grantor of such rights to receive, in accordance with the provisions hereof, rights to the inventions of such third party relating to the same industry or product.

XV. DURATION.

This agreement shall continue in effect until December 31, 1940. Upon the termination of this agreement the

1701

parties hereto shall continue to have and possess the perpetual right to practice any and all inventions acquired hereunder and to make, use and sell any and all products embodying such inventions within their respective territories.

XVI. CANCELLATION OF EXISTING AGREEMENTS

The aforesaid agreements between the parties hereto, dated January 1, 1925 and January 1, 1926, all amendments and additions thereto and all interpretations thereof and understandings in relation thereto, are hereby cancelled and terminated; but the rights heretofore granted thereunder with respect to products classified under Article IV hereof shall continue to the same effect as though granted pursuant to and in accordance with this agreement.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed in triplicate by their officers thereunto duly authorized, and their common or corporate seals to be hereunto affixed, as of the day and year first above written.

IMPERIAL CHEMICAL INDUSTRIES, LTD

By J. H. McGowan
Director

Attest:
Assistant Secretary

E. I. du PONT de NEMOURS & COMPANY

By
President

Attest:
Secretary

CANADIAN INDUSTRIES LIMITED

By
President

Attest:
Secretary

1701

GOV'T EXHIBIT NO. 457
Civil Action 1216

DUPONT CELLOPHANE

DU PONT CELLOPHANE COMPANY, INC.

EMPIRE STATE BUILDING
350 FIFTH AVENUE
NEW YORK, N.Y.

December 8, 1933.

COPY TO:

J. E. Hatt, G.M. Cellophane Dep't.
M. duPont Lee, G.M. Technical Dep't.
F. M. Pralatowski, Patent Service, Technical Dep't.
R. M. Hersey, Director Development Div., Technical Dep't.
C. R. Mudge, Director Legal Dep't. - Wilmington.
W. R. Swint, Director Foreign Relations Dep't. - Wilmington.
G. V. Wolstenholme, Auditor - Wilmington.

Received 12/11/33 O. E. Adamson

TO: O. E. Adamson, Secretary (2).

AGREEMENT WITH CANADIAN INDUSTRIES, LTD., COVERING CANADIAN "CELLOPHANE" BUSINESS:

About the middle of 1931 oral agreement was reached with the Canadian Industries, Ltd., covering our turning over to them of the Canadian Cellophane business on the basis of their paying us 15% of the net profits for 15 years. Shortly after that date, with our assistance, arrangements were made to begin the construction and operation of a Cellophane plant at Shawinigan Falls, Quebec.

As of April 1, 1932, a temporary agreement was entered into with C. I. L., considering the Cellophane business in Canada to be still under our control. It was indicated that this was for the purpose of establishing Canadian manufacturing goodwill in addition to Cellophane selling goodwill in order to transfer the trade-mark "Cellophane" under a new Canadian law which became effective September 1, 1932. It was intended, after that purpose had been accomplished, that another agreement would be executed covering our turning over to C.I.L. all of our Cellophane rights in Canada.

In order to safeguard our rights in the trade-mark "Cellophane", it was later considered necessary, upon advice of counsel, to retain our ownership of the Canadian Cellophane trade-marks. For this and other reasons, in connection with negotiations with C.I.L., a final agreement was not executed with them until just recently. This agreement, bearing approval of the Parent Company's Legal Department, was entered into as of November 1, 1933 and replaces the temporary agreement of April 1, 1932. The original executed copy of this final agreement is attached hereto, together with a working copy, receipt of which kindly acknowledge on the attached extra copy of this letter.

AT-6951

At meeting of our Board of Directors, held on December 7, 1933, execution of this final agreement was formally ratified.

Briefly, this agreement provides for C.I.L. handling the manufacture and sale of Cellophane in Canada and Newfoundland, paying to us a royalty of 15% of net profits resulting from such sales of Cellophane down to April 23, 1947. After this date, there is provision for renewal of the agreement, without royalty payment to us, it being possible to extend the agreement from year to year not exceeding a period of 75 years from April 23, 1947. In any event, the agreement provides that we shall retain the rights to the Cellophane trade-mark in Canada. The agreement also provides for the exchange of technical information.

A copy of the attached agreement with C.I.L., bearing date of November 1, 1933, has been sent to the individuals listed above, together with copy of this letter.

F. D. Hess

F. D. Hess
ASS'T. SECRETARY.

1-8
enclosures

P.S. In transmitting the final agreement to C. M. Spargo of the Wilmington Legal Department, L. W. Haslett, Manager Cellulose Products Group, C.I.L. commented in his letter, dated November 21, 1933, as per memorandum attached. It is suggested that this be filed with the agreement itself. Copy of this memorandum is being sent to each individual receiving copy of the agreement.

6951

Gov't Exhibit No. 1271
Civil Action 1216

Original by Air Mail. Duplicate by Surface Mail.

DU PONT

E. I. DU PONT DE NEMOURS & COMPANY
Incorporated
WILMINGTON, DELAWARE

"CELLOPHANE" DIVISION
MANUFACTURERS OF CELLULOSE FILM

October 17, 1940

La Cellophane S.A.
23 Place Tolozan
Lyons, France.

Gentlemen:

Question has been raised within our organization as to the existence of territorial limitations under our agreements with your company relating to regenerated cellulose film. In order that our position may be clearly and frankly established, we desire to record with you our conclusions.

Based upon the provisions of the contracts, and in the light of legal developments in this country, we construe these agreements as imposing no restrictions upon the sale of regenerated cellulose film in any country in which the public is free to sell. Thus we regard each party as free to export such film to any country in the world, subject only to such limitations as lawfully may be based upon the unauthorized use of patented inventions or trade-marks in the country of manufacture, or in the country of use or sale.

This letter is not intended to modify any of the provisions of our agreements involving the exchange of technical information.

Yours very truly,

J. E. Hatt
Division Manager

B.

GOV'T EXHIBIT NO. 1214
Civil Action 1216

C.I.L. Cello

E. I. DU PONT DE NEMOURS & COMPANY
WILMINGTON, DELAWARE

"CELLOPHANE" DIVISION
MANUFACTURERS OF CELLULOSE FILM

October 17, 1940.

Canadian Industries Ltd.,
P.O. Box 10
Montreal, Canada.

Gentlemen:

Question has been raised within our organization as to the existence of territorial limitations under our agreements with your company relating to regenerated cellulose film. In order that our position may be clearly and frankly established, we desire to record with you our conclusions.

Based upon the provisions of the contracts, and in the light of legal developments in this country, we construe these agreements as imposing no restrictions upon the sale of regenerated cellulose film in any country in which the public is free to sell. Thus we regard each party as free to export such film to any country in the world, subject only to such limitations as lawfully may be based upon the unauthorized use of patented inventions or trade-marks in the country of manufacture, or in the country of use or sale.

This letter is not intended to modify any of the provisions of our agreements involving the exchange of technical information.

Yours very truly,

J.E. Hatt
Division Manager

B.

Cellophane
TRADE MARK

AF-13523

GOVT. EXHIBIT NO. 1275
Civil Action 1216

Original by Air Mail. Duplicate by Surface Mail.

10 each

DU PONT

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE

CELLOPHANE DIVISION
MANUFACTURERS OF CELLULOSE FILM

Cy 3/7/29

October 17, 1940.

Kalle & Company A.G.
Wiesbaden-Biebrich
Germany.

Gentlemen:

Question has been raised within our organization as to the existence of territorial limitations under our agreements with your company relating to regenerated cellulose film. In order that our position may be clearly and frankly established, we desire to record with you our conclusions.

Based upon the provisions of the contracts, and in the light of legal developments in this country, we construe these agreements as imposing no restrictions upon the sale of regenerated cellulose film in any country in which the public is free to sell. Thus we regard each party as free to export such film to any country in the world, subject only to such limitations as lawfully may be based upon the unauthorized use of patented inventions or trade-marks in the country of manufacture, or in the country of use or sale.

This letter is not intended to modify any of the provisions of our agreements involving the exchange of technical information.

Yours very truly,

J.E. Hatt
Division Manager

E.

Dw J 1095-T
7-21-47

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Cellophane

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GOV'T EXHIBIT NO. [illegible]
Civil Action 1216

Original by Air Mail. Duplicate by Surface Mail

E. I. DU PONT DE NEMOURS & COMPANY

Wilmington, Delaware

"Cellophane" Division

October 17, 1940

British Cellophane Ltd.,
17-19 Stratford Place
Oxford St. London W.1
England.

Gentlemen:

Question has been raised within our organization as to the existence of territorial limitations under our agreements with your company relating to regenerated cellulose film. In order that our position may be clearly and frankly established, we desire to record with you our conclusions.

Based upon the provisions of the contracts, and in the light of legal developments in this country, we construe these agreements as imposing no restrictions upon the sale of regenerated cellulose film in any country in which the public is free to sell. Thus we regard each party as free to export such film to any country in the world, subject only to such limitations as lawfully may be based upon the unauthorized use of patented inventions or trade-marks in the country of manufacture, or in the country of use or sale.

This letter is not intended to modify any of the provisions of our agreements involving the exchange of technical information.

Yours very truly

J. E. Shatt
Division Manager

AT-6044

DuP 26-Cg 6
12-15-41

GOV'T EXHIBIT NO. 1279
Civil Action 1216

P-12002-

E. I. DU PONT DE NEMOURS & COMPANY

WILMINGTON, DELAWARE

RAYON DEPARTMENT
ACETATE DIVISION
"CELLOPHANE" DIVISION
NYLON DIVISION
RAYON DIVISION

OC: Mr. J. E. Hatt-R.E.T. Haff, "Cellophane"
Mr. M. du Pont Lee, M. Technical Div.
Mr. R. M. Horsey, D. Development Sec.
Mr. C. M. Albright, M. Control Division
Mr. F. M. Pralatowski, D. Patent Service
Mr. C. F. Daley, Legal Department
Dr. Fin Sparre, D. Development Dept.
Mr. H. C. Haskell (2), D. Legal Dept.
Mr. A. C. Nielsen, Comptroller
Mr. G. V. Wolstenholme, Auditor
Mr. W. R. Swint, D. For. Relations Dept.
Mr. H. A. Kingsbury, Legal Department

March 26, 1941

Mr. W. F. Raskob (2)
SECRETARY

SOCIETE DE LA VISCOSE FRANCAISE (CAPES VISCOSE) -
CELLULOSE CAPS AND BANDS AGREEMENT - CANCELLATION

We send you herewith for filing with the technical agreement dated January 1, 1930 between Societe de la Viscose Francaise (formerly Societe Francaise des Crins Artificiels) and DuPont Cellophane Company:

1. a translation of a letter dated December 31, 1940 from the Comptoir des Textiles Artificiels advising us that they can no longer conform to the provisions of our technical agreements relating to products from viscose (The original letter is filed with the agreement between the Comptoir and the DuPont Fibersilk Company of December 26, 1923.); and

2. a copy of Mr. Yerkes' letter of March 26, 1941 to the Comptoir agreeing to the cancellation of our several agreements including that with La Cellophane.

Authorization to proceed as above was granted by the Executive Committee by its resolution of March 19, 1941. As a result of this exchange of letters this agreement is now cancelled.

Copies of (1) and (2) are enclosed for recipients of copies of this letter.

Please acknowledge receipt of these documents by returning the duplicate copy of the letter.

Secretary
Mar 27 1941
Rec'd by

R. E. DeRight
SPECIAL ASSISTANT

RED:s
enclosures

C-8785

COPY

March 26, 1941

Comptoir des Textiles Artificiels
23, Place Tolozan
Lyon, Rhone,
FRANCE

Gentlemen:

Due to existing conditions, we understand that it is not possible for your company and its associated companies to conform to the provisions of our technical agreements, relative to the field of viscose yarns and fibers, the field of transparent papers, and the field of tubular pellicles for bottle seals and the like. In view of this situation, we consider our technical agreements with Comptoir, La Cellophane and Societe de la Viscose Francaise to be terminated.

We wish to offer you our regret that force of circumstances has compelled this action to be taken.

Yours very truly,

L. A. Yerkes,
GENERAL MANAGER

C-8785-B

GOV'T EXHIBIT NO. 1280
Civil Action 1216

PLEASE RETURN
2425 duPONT BLDG

DUPONT

E. I. DU PONT DE NEMOURS & COMPANY
WILMINGTON, DELAWARE

RAYON DEPARTMENT
ACETATE DIVISION
"CELLOPHANE" DIVISION
NYLON DIVISION
RAYON DIVISION

cc: Mr. J. E. Hatt, M. "Cellophane" Div.
Mr. M. du Pont Lee, M. Technical Div.
Mr. R. M. Horsey, L. Development Sec.
Mr. C. M. Albright, M. Control Division
Mr. F. M. Fraletowski, L. Patent Service
Mr. C. F. Haley, Legal Department
Dr. Fin Sparre, D. Development Dept.
Mr. H. C. Haskell (2), D. Legal Dept.
Mr. A. C. Nielsen, Comptroller
Mr. O. V. Wolstenholme, Auditor
Mr. W. R. Swint, D. Per. Relations Dept.
Mr. H. A. Kingsbury, Legal Department

March 26, 1941

MAR 31 1941

Mr. W. F. Raskob (2)
SECRETARY

KALLE & COMPANY - CELLULOSE FILM AGREEMENT - CANCELLATION

We send you herewith for filing with the technical agreement dated May 7, 1929 between Kalle & Company, A.G. and the DuPont Cellophane Company a copy of Mr. Yerkes' letter of March 26, 1941 to Kalle advising them of the cancellation of our agreement. A copy of Kalle's letter of October 2, 1940, mentioned in Mr. Yerkes' letter is also attached.

Authority to cancel this agreement was granted by the Executive Committee by its resolution of March 19, 1941. This agreement is now considered cancelled.

Copies of the reference letters are attached for recipients of copies of this letter.

Please acknowledge receipt of these documents by returning the duplicate copy of the letter.

R. E. DeRight
SPECIAL ASSISTANT

RED:Q
Enclosures

COPY

MAR 31 1941

March 26, 1941

Kalle & Co., A. G.
Wiesbaden-Biebrich
GERMANY

Gentlemen:

Your recent correspondence with us, and particularly your letter of October 2, 1940, has notified us of your inability to fulfill the obligations of your technical agreement with us in the field of regenerated cellulose wrapping tissues and the like.

We consider our technical agreement with La Cellophane to be terminated, due to existing conditions, and must also take the same attitude with respect to our agreement with your company in view of your inability to carry out the terms of the agreement. Although we consider our agreement with your company to be terminated, we are sorry that present-day conditions have brought an end to a relationship which has been to our mutual benefit.

Yours very truly,

L. A. Yerkes,
GENERAL MANAGER

B
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GOV'T EXHIBIT NO. 1414
Civil Action 1216

OFFICIAL REPORT

Meetings of the 11th and 12th of February, 1930.

This PX. has no evidenciary value showing du P as a member of any European cartel, Check with GX 1013

Are present, Messrs. Van Ham
Vleurink
Pickard
Swint
Lissmann
Todt
Brandenberger
Gillet
Bernheim
Maucomble

Monsieur Gillet explained that an Agreement could be entered into by and between the different producers of Cellophane present at this meeting, and M. Wolff, if he agrees, after Kalle & Company have explained to him the present negotiations, it being understood that:
the French market will be reserved to the French company, LA CELLOPHANE, the German market to KALLE & COMPANY and M. WOLFF, the Belgium and Dutch markets to the S.I.D.A.C., the Italian market to the Italian S.I.D.A.C. Company and North America to the DU PONT DE NEMOURS and SYLVANIA formed by the S.I.D.A.C., and creating, moreover, a controlling body supervising the prices and the repartition of the production of the companies and having eventually to assume the sale in one or the other of the non-reserved countries, and, even creating, if necessary, a special Cellophane's Sales Company in these countries

AT- 7192

Du P 35 - Cg 121
1-3-42

Agreed.

This controlling body could have its head office in Switzerland.

The proposed agreement could, in principle, be in force for 30 years, renewable.

Cellophane for the photographic and cinematographic applications of all sorts will be excluded from this agreement, as well as waterproof cellophane; for that sort of material each of the producers will keep its independence and carry on its researches.

The representatives of the S.I.D.A.C. ask for the study of the possibility of pooling the patents taken both by the French Cellophane and by S.I.D.A.C., and some of the patents that S.I.D.A.C. has worked out and which it thinks would constitute improved patents which would have the effect of preventing the creation of new cellophane affairs.

Mr. BRANDENBERGER agrees, in the first instance.

It is however specified at present that the patents taken by DU PONT DE NEMOURS shall remain outside the Agreement and that S.I.D.A.C. shall not take (or any benefit) advantage of them.

It is therefore decided that both S.I.D.A.C. Company and the French CELLOPHANE Company will ask for the suppression of all law suits carried either by them or their representatives both in France and in Belgium.

S.I.D.A.C. takes the engagement to carry out 719 immediately all necessary formalities to withdraw the plea

of abatement it has carried on in Germany for the patent of ripening.

On account of a remark formulated by the representatives of the KALLE Company that new outsiders are to be feared, the Polish[illegible] for instance, it is decided that all participants to the controlling body shall join to fight against the new outsiders, and the expenses incurred in this way shall be supported by each of the participants in the proportion of quota which will be attributed to it in the said body.

After discussion it was unanimously decided that preliminary work of control of the sale of the different producers must be performed, which could be done by a fiduciary company, for instance, the Societe Fiduciaire Suisse, of Basle,

This being settled, the quota shall be determined as follows:

The Fiduciary company shall fix in the mills of Besons and Nantes, of Ghent, of Kalle of Biebrich and of Wolf, if possible taking the basis of 30 grammes by metre (other qualities in proportion according to the weight) the number of metres sold and invoiced during the year 1929 to the exportation, outside the reserved countries: France for the CELLOPHANE Company, Germany for the KALLE Company and M. WOLFF if it occurs, Belgium and Holland for S.I.D.A.C. and, excepting the export made by each of the companies to North

America (Canada-Mexique - United States - Cuba and generally speaking all countries of North America down to the Panama canal).

To the quantity of metres so determined, admitted for S.I.D.A.C. company there shall be added for the calculatio of its quota, from the date at which this company will have ceased its importations from Belgium to America, the number of metres corresponding to a production of 500 K° net a day, as long as the normal sale of the production of 4 machines of a production of about 1,000 kgs. net per machine per day shall not be assured.

Paris, 12th February 1930.

Attested
Ed. GILLET

Attested
Rene BERNHEIM

Attested
A. TODT

Attested.
Ed. BRANDENBERGER

Attested
WILKURINK

Attested
VAN HAM.

GOVT EXHIBIT NO. 2183

DU PONT CELLOPHANE

DU PONT CELLOPHANE COMPANY, INC.

EMPIRE STATE BUILDING
350 FIFTH AVENUE
NEW YORK, N.Y.

GENERAL MANAGER'S OFFICE

May 15th, 1933.

ARRANGEMENTS FOR TUBE MANUFACTURE WITH HUMITUBE AND DOBECKMUN COMPANIES

You will recall the arrangements made a year or so ago whereby we took over patents from the Dobeckmun Company and the Humitube Company, under an arrangement whereby each of them was given a license under the Dobeckmun patents for the manufacture of cigar tubes from Moistureproof Cellophane, and under the patent taken over from Humitube covering the solvent sealing of Moistureproof Cellophane.

A part of our consideration in payment of these patents to these concerns was our agreeing to give them each a non-exclusive license under those patents for their own use but agreeing also that no further licenses under these patents would be granted except to the Humitube Company and to the Dobeckmun Company.

Sometime ago, we had a request from a concern in Chicago to sell them Cellophane for the manufacture of cigar tubes - which manufacture would infringe these patents. → see attached

At that time, the matter was thoroughly discussed with Mr. W. S. Pritchard and Judge W. S. Gregg of the Legal Department in Wilmington, and they advised us that under our arrangements with the Humitube and Dobeckmun Companies, we could not license a third converter and that we were obligated to protect these patents against infringement by others.

AT-13401

The Samwrap Co. who threatened action under Clayton act despite which our Law Dept advised not granting license etc &c

DUPONT CELLOPHANE
REG. U.S. PAT. OFF.

Cellophane is the Registered Trade Mark of the Du Pont Cellophane Company, Inc.
for designate its transparent cellulose sheets and films.

DU PONT CELLOPHANE COMPANY, INC.

EMPIRE STATE BUILDING
350 FIFTH AVENUE
NEW YORK, N.Y.

GENERAL MANAGER'S OFFICE

Advice to this effect was sent to the Chicago converter who was interested - the letter having been prepared by Judge Gregg in consultation with Mr. Pritchard.

We have heard nothing further regarding the incident, but we are informed recently that a representative of the Federal Trade Commission called on both Humitube and Dobeckmun Companies - inquiring about their arrangements with us and with Humitube on the manufacture and sale of pouches. This representative was Mr. Henry Junge, Jr., from the Chicago office of the Federal Trade Commission. At the Dobeckmun Company, he asked for copies of the contracts which they furnished him. These were copies of our agreement with them regarding purchase of the patent and also copy of the license agreement under which they operate.

The entire situation so far as we can determine, appears to be entirely legal and in good order and this is supplied purely as a matter of information.

J. E. Hatt

J. E. HATT

GENERAL MANAGER.

13401

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GOV'T EXHIBIT NO. _____
Civil Action 1216

DU PONT CELLOPHANE

DU PONT CELLOPHANE COMPANY, INC.

EMPIRE STATE BUILDING
350 FIFTH AVENUE
NEW YORK, N.Y.

GENERAL MANAGER'S OFFICE

December 19, 1933.

SUIT AGAINST VIS-O-TUBE COMPANY, CHICAGO.
for infringement of HUMITUBE and DOBECKMUN PATENTS.

In connection with this suit, I think the following information may be of interest for our permanent record and this memorandum is to give you certain facts of recent occurence just to complete your file in connection with this.

Several days ago, we had a call from Mr. James J. Laughlin an attorney for the Federal Trade Commission, Washington, D.C.

It seems a complaint had been filed by the Sani-Wrap Company of 2714 Cottage Road, Chicago, which is headed by one Leonard Wecklers, and who is a small producer of tubes for cigars. At one time, he bought some material from us but on account of the arrangements under which we were able to secure the Dobeckmun-Humitube patents, it was not possible, under that agreement, to license him and we were forbidden to sell Moistureproof Cellophane for the manufacture of these cigar tubes to others than the two licensees under that agreement by which we secured these patents.

Later, this consumer purchased some material from the Sylvania Corporation which they rejected as not being satisfactory from a moisture protection point of view, and they returned it upon information from Sylvania that that was the best material they could furnish them.

Claim was made in the representations to the Federal Trade Commission that our relations with Sani-Wrap were probably affected by the fact that we had recently settled a suit in patent litigation with the Sylvania Company, and what they were suggesting was that in making such settlement one of the considerations had been a refusal on the part of Sylvania to sell them moistureproof material for tube manufacture. This, of course, is entirely at variance

AT-13399

DUPONT CELLOPHANE
REG. U.S. PAT. OFF.

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DU PONT CELLOPHANE COMPANY, INC.

EMPIRE STATE BUILDING
350 FIFTH AVENUE
NEW YORK, N.Y.

GENERAL MANAGER'S OFFICE

with the facts in the case and we so informed the representative of the Federal Trade Commission. The complaint also recited some of the details of our former relations and discussions with the Vis-O-Tube Company whom we are now suing for patent infringement and a concern known as the Crystal Tube Company, also of Chicago.

Present at the conference with Mr. Laughlin were: Mr. Yerkes for part of the time and Mr. H. C. Haskell of the Wilmington Legal Department for the entire time of the interviews here. Later, upon request of Mr. Laughlin for information regarding the settlement of the litigation between Sylvania and ourselves on Moistureproof patents, we referred him to Mr. Haskell of the Legal Department in Wilmington and he has, therefore, probably seen him again.

After the accumulation of all the evidence available on this subject in Chicago, the attorney informed me that from his point of view, there appeared to be no grounds for a valid complaint here and he was writing a report accordingly to the Commission. He also informed us if there were anything in subsequent proceedings that were not in accordance with what is indicated herein, he would see we were duly informed.

I believe the incident is satisfactorily closed but I thought there should be something in the record on it - hence this memorandum.

J. E. HAUT

GENERAL MANAGER.

GOV'T EXHIBIT NO. 2192
Civil Action 1216

SYLVANIA INDUSTRIAL CORP.

New York City

COPY

June 30, 1937

Dr. W. W. Smith, Patent Service,
E. I. du Pont de Nemours & Company,
Rayon Department,
Buffalo, N.Y.

Dear Sir: Re: DU PONT-SYLVANIA CROSS-LICENSE - HUNTER U.S. NO. 2,062,179 - MORGAN U.S. NO. 2,043,860

We acknowledge receipt of your letter of June 14th and regret to note that the proposed agreement under the above identified patents was not acceptable to your Legal Department.

With respect to the change of the article relating to validity, we agree to the addition that the acknowledgment of validity and the agreement not to contest the same will run only for the duration of the agreement.

With reference to the proposed elimination of the article regarding licensing of third party manufacturers, we wish to say that we understand the position which your Legal Department has taken and we appreciate the reasons for their objections to this paragraph. We believe that their chief objection arises from the fact that the article implies a mutual agreement between Du Pont and Sylvania to restrict the number of licenses to third parties. It appears, however, that this objection arises solely from the manner in which this article has been set up, that is, from the fact that both patents are covered in the same paragraph.

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In the moistureproofing agreement dated April 26, 1933 between Du Pont and Sylvania, you will find a provision that Du Pont agrees not to license third parties to manufacture moistureproof materials without the written approval of Sylvania. We believe, therefore, that such a restriction, if applied only to your own patents, is not inconsistent with the policy of your company.

Accordingly, we suggest that the article regarding third party licenses should be divided into two articles as proposed on the attached sheets. Our Legal Department is of the opinion that there can be no valid attack of the paragraphs given on the attached sheets because the obligation is restricted in each case to the patent owned by the licensor.

In resubmitting the revised paragraphs on the attached sheet to your Legal Department, we suggest that you call their attention to the fact that similar paragraphs were approved and embodied in the Du Pont-Sylvania moistureproofing agreement above mentioned.

Trusting that the above suggestions will meet the full approval of your administration, we look forward to receiving the executed copy of the proposed agreement in the near future.

Very truly yours,

SYLVANIA INDUSTRIAL CORPORATION

/S/ Worth Wade
Patent Department

WW:AM

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Sylvania agrees that no license under Morgan U.S. Patent No. 2,043,860 or reissue or extension thereof, granting to any third party the right to manufacture ultra-violet light protective articles of the character defined in the claims of the said patents, will be given without the mutual written approval of Du Pont, which license, if given by Sylvania, may include suitable royalty provisions to be shared equally by Sylvania and Du Pont. It is understood, however, that Sylvania may license or sublicense its customers under said Hunter and said Morgan Patents to use ultra-violet light protective articles of the character defined in the claims of said patents, in the making of articles comprising said film and described and claimed in said patents, or reissue or extension thereof, throughout the United States of America, its territories and dependencies, and to sell said articles.

Du Pont agrees that no license under Hunter U.S. Patent No. 2,062,179 or reissue or extension thereof, granting to any third party the right to manufacture ultra-violet light protective articles of the character defined in the claims of the said patents, will be given without the mutual written approval of Sylvania, which license, if given by Du Pont, may include suitable royalty provisions to be shared equally by Sylvania and Du Pont. It is understood, however, that Du Pont may license or sublicense its customers under said Hunter and said Morgan Patents to use ultra-violet light protective articles of the character defined in the claims of said patents, in the making of articles comprising said film and described and claimed in said patents, or reissue or extension thereof, throughout the United States of America, its territories and dependencies, and to sell said articles.

B 13348

GOVT EXHIBIT NO. 2195
Civil Action 1216

cc: Mr. F. G. Hess - Wilmington

August 3, 1937

Dr. Worth Wade
Patent Department
Sylvania Industrial Corporation
122 East 42nd Street
New York, New York

Dear Sir: DU PONT-SYLVANIA CROSS-LICENSE - HUNTER U.S. NO. 2,062,179 - MORGAN U.S. NO: 2,043,860

We thank you for your letter of July 28, 1937, in the above subject and wish to say that we are in accord with your views regarding the nature of the Hunter and Morgan patents and the advisability of providing means whereby third parties can be licensed under both patents.

The suggested revision which you have made in the third paragraph of your letter appeals to us as offering a solution to the problem in hand. As we have pointed out in previous correspondence, our Legal Department is particularly anxious to avoid any terms in an agreement which might be construed as an attempt at restraint of trade. They are anxious to eliminate any terms which might even hint at possible connivance in this direction. Thus, it might be held that our agreeing to make the licensing of a third party manufacturer contingent upon mutual consent would give rise to a situation wherein at all times one of us would be unwilling to grant that consent. Obviously, it is not the intention of either of us to set up such a situation but we believe that you will agree that neither of us would wish to have an agreement which could be easily misconstrued by any outside party.

We are communicating your suggestion to our Legal Department and we expect to have soon a revised agreement which will be satisfactory all around.

Very truly yours,

RAYON TECHNICAL DIVISION

AT-13345

W.W. Smith
Patent Service

WWS:MV

Dr. Worth Wade August 3, 1937

P.S. Mr. F. G. Hess:

We send you herewith copy of Dr. Wade's letter of July 28, 1937 and as we explained to you in your office, July 30, we believe the suggestion of Dr. Wade applies to the two paragraphs which Dr. Wade suggested as substitute for Paragraph 6 of the agreement which we submitted to them. We discussed this proposal informally with Mr. Haskell in the presence of Mr. Biesterfeld on July 30 and he expressed the view that an agreement revised in accordance with this proposal would be acceptable to the Legal Department. He explained that this would be subject to a discussion he planned to have with Mr. Gregg on Monday, August 2, 1937, and unless we heard from him to the contrary, we might expect that there would be no change in his views. Since dictating the earlier portion of this letter, we have learned that Mr. Gregg has no objection to this revision and accordingly, we will submit to you for formal treatment a revised agreement form which we hope will bring this matter to a satisfactory conclusion.

W.W.S.

WWS:HW
t-f

GOV'T EXHIBIT NO. 2198
Civil Action 1216

AGREEMENT made this 22nd day of October, 1937, in the City of Wilmington, County of New Castle and State of Delaware, by and between E. I. DU PONT DE NEMOURS AND COMPANY, a corporation organized and existing under the laws of the State of Delaware, and having its principal place of business at Wilmington, County of New Castle and State of Delaware (hereinafter called DU PONT), and SYLVANIA INDUSTRIAL CORPORATION, a corporation organized and existing under the laws of the State of Virginia, having its principal place of business in New York, New York (hereinafter called SYLVANIA);

WITNESSETH:

WHEREAS, DU PONT is the owner of the entire right, title and interest in and to Hunter U.S. Patent No. 2,062,179, issued November 24, 1936 for Articles of Manufacture; and

WHEREAS, SYLVANIA is the owner of the entire right, title and interest in and to Morgan U.S. Patent No. 2,043,860, issued June 9, 1936 for Preservation of Substances; and

WHEREAS, SYLVANIA desires to obtain a license under said Hunter Patent, and DU PONT desires to obtain a license under said Morgan Patent;

WHEREAS, the Agreement dated April 26, 1933 between SYLVANIA and Du Pont Cellophane Company, Inc., does not provide for the licensing of the parties under said Hunter and Morgan patents;

NOW, THEREFORE, in consideration of the full and faithful performance by the parties hereto of the covenants set forth hereinafter, it is mutually agreed as follows:

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du P. 14-09 34

1. DU PONT hereby grants to SYLVANIA a non-exclusive, non-assignable, license to practice the inventions and to make, use and sell the products described and claimed in said Hunter U.S. Patent No. 2,062,179, or any reissue or extension thereof, throughout the United States of America, its territories and dependencies, said license to SYLVANIA including the right in SYLVANIA to sublicense its customers to use ultra-violet light protective material of the character defined in the claims of said Hunter patent, in the making of articles comprising said material and described and claimed in said Hunter patent or reissue or extension thereof, throughout the United States of America, its territories and dependencies, and to sell said articles.

2. SYLVANIA hereby grants to DU PONT a non-exclusive, non-assignable license to practice the inventions and to make, use and sell the products described and claimed in said Morgan U.S. Patent No. 2,043,860, or any reissue or extension thereof, throughout the United States of America, its territories and dependencies, said license to DU PONT including the right in DU PONT to sublicense its customers to use ultra-violet light protective material of the character defined in the claims of said Morgan patent, in the making of articles comprising said material and described and claimed in said Morgan patent or reissue or extension thereof, throughout the United States of America, its territories and dependencies, and to sell said articles.

3. SYLVANIA will apply to products sold under the license granted to SYLVANIA herein the legend "Licensed under U.S. Patent No. 2,062,179", and will impose on its sublicensees

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the obligation to apply the same legend to articles made and sold by said sublicensees and described and claimed in said Hunter U.S. Patent.

4. DU PONT will apply to products sold under the license granted to DU PONT herein the legend "Licensed under U.S. Patent No. 2,043,860", and will impose on its sublicensees the obligation to apply the same legend to articles made and sold by said sublicensees and described and claimed in said Morgan U.S. Patent.

5. SYLVANIA hereby acknowledges the validity of Hunter U.S. Patent No. 2,062,179 and agrees not to contest the same, for the life of this Agreement, and DU PONT hereby acknowledges the validity of Morgan U.S. Patent No. 2,043,860 and agrees not to contest the same, for the life of this Agreement.

6. SYLVANIA agrees that no license under Morgan U.S. Patent No. 2,043,860 or reissue or extension thereof, granting to any third party the right to manufacture ultra-violet light protective articles of the character defined in the claims of the said Morgan patent, will be given without notice to DU PONT in writing, of the name of such third party thirty (30) days before said license is to take effect. It is understood, however, that SYLVANIA may license or sublicense its customers under said Morgan patent, without giving such notice to DU PONT, to use ultra-violet light protective articles of the character defined in the claims of said Morgan patent, in the making of articles comprising said film and described and claimed in said Morgan patent, or reissue or extension

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thereof, throughout the United States of America, its territories and dependencies, and to sell said articles.

7. DU PONT agrees that no license under Hunter U.S. Patent No. 2,062,179 or reissue or extension thereof, granting to any third party the right to manufacture ultra-violet light protective articles of the character defined in the claims of the said Hunter patent, will be given without notice to SYLVANIA in writing, of the name of such third party thirty (30) days before said license is to take effect. It is understood, however, that DU PONT may license or sublicense its customers under said Hunter patent, without giving such notice to SYLVANIA, to use ultra-violet light protective articles of the character defined in the claims of said Hunter patent, in the making of articles comprising said film and described and claimed in said Hunter patent, or reissue or extension thereof, throughout the United States of America, its territories and dependencies, and to sell said articles.

8. No right or license is granted to SYLVANIA, by virtue of this Agreement, under any patent owned by DU PONT except said Hunter U.S. Patent No. 2,062,179, or reissues or extensions thereof.

9. No right or license is granted to DU PONT, by virtue of this Agreement, under any patent owned by SYLVANIA except said Morgan U.S. Patent No. 2,043,860, or reissues or extensions thereof.

10. The grant of the aforesaid licenses under said Hunter and Morgan patents shall not obligate either party to the payment of royalty as far as the said Hunter and Morgan patents are concerned, but nothing herein shall relieve either

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party from the payment of such royalties as are required by the Agreement dated April 26, 1933, between SYLVAN. \ and the Du Pont Cellophane Company, Inc., and the provisions of said contract dated April 26, 1933, are not in any way amended or modified by any provision of this present Agreement.

11. The licenses granted herein shall inure to the benefit of and be binding upon the successors of the entire non-fibrous wrapping tissue business of the parties to this Agreement.

IN WITNESS WHEREOF the parties hereto have caused these presents to be signed by their respective proper signatories and their respective corporate seals to be hereunto affixed on the day and year first above written.

E. I. DU PONT DE NEMOURS & COMPANY

C.F.D.
W.S.G.
C.H.B.
J.E.H.

ATTEST:

By (s) L. A. YERKES
General Manager
RAYON DEPARTMENT

(s) E A HOWARD
Ass't. Secretary

SYLVANIA INDUSTRIAL CORPORATION

By (s) H. H REPLOGLE
President.

ATTEST:

(s) GEORGE S HILLS
Secretary

A-42

GOVT EXHIBIT 2467
Civ. Action 1216

4-9

July 13, 1943

DR. J. K. HUNT

M. C. Pollock, of the Cellophane Division, questioned 1931 as the date for the first appearance of moistureproof cellophane and in checking with F. M. Prall I find this date applies only to patents and that moistureproof cellophane was actually sold in experimental lots in 1926 and entered large scale production in 1927.

For your information, here are a few notes from the chronology which Mr. Prall has:

February, 1926 - Sheets of moistureproof cellophane (at that time called Special Cellophane or Waterproof Cellophane) sent to Johnson & Johnson for trial with adhesive tape.

April, 1926 - Samples tested by the Bureau of Standards.

June, 1926 - 500 pounds made for trade sampling.

October 14, 1926 - First sale of moistureproof cellophane to the Niles Capsule Company, Invoice No. 8164. Ten pounds of 300 gage, 18 inches wide, $20.10.

January, 1927 - Bens told the salesmen to solicit orders for small stock.

March, 1927 - 218 pounds sold to the Liberty Dairy Company of Pittsburgh.

March, 1927 - Project transferred from experimental to production on a machine with capacity of 50 pounds a day.

May 5, 1927 - Bens states that the company will be in large scale production in 30 to 60 days and gives prices to the salesmen.

July 1, 1927 - Coating tower in operation at Buffalo.

C-8041

August 27, 1927 - Boss tells salesmen to refer to the material hereafter as moistureproof cellophane instead of special cellophane or WP cellophane.

October, 1927 - First ad for moistureproof cellophane appears in Bakers' Weekly.

October 6, 1927 - News item in Paper Trade Journal.

November 2, 1927 - 18,000 pounds on hand.

At the end of 1927, 58,279 pounds had been sold.

STEVEN M. SPENCER

Steven M. Spencer

SMS:RS

Govt Exhibit 2469
Civil Action 1216

August 26th, 1930.

MR. W. S. CARPENTER, JR.,
CHAIRMAN, BOARD OF DIRECTORS,
DU PONT CELLOPHANE COMPANY

SUMMARY MOISTUREPROOF
CELLOPHANE PATENT SITUATION

At the present time, the Company has only one issued patent on Moistureproof Cellophane - United States patent #1,737,187 - a product patent issued November 26th, 1929, which contains several very broad claims. Regarding the strength and validity of this patent, we quote herewith, the opinion of W. S. Pritchard, Patent Counsel, who prosecuted the patent and is entirely familiar with all the details surrounding its issue:

"This patent covers Moistureproof Cellophane, and it contains several very broad claims. The validity of claims 1 to 5 inclusive depends on whether or not the Reid patent #1,116,627 produces a moistureproof, transparent and flexible material. Dr. Charch stated that in his opinion, the Reid patent will not produce a clear, non-tacky, moistureproof material as claimed in your patent. The remaining claims in my opinion are valid:

"The article of manufacture - i.e. the moistureproof Cellophane does not infringe any United States patent.

"The solvent mixture per se infringes the following patents which are owned by the parent company:

Hitt	#1,321,633
Hitt	1,321,634
Flaherty	1,356,440

"The apparatus and method employed in the preparation of Moistureproof Cellophane as now practiced does not infringe any United States patent.

"The coating composition now used does not infringe any United States patents."

Applications are pending covering the composition of matter for coating, the method, and apparatus for making Moistureproof Cellophane. According to the opinion of Mr. Pritchard, "the prospects are good for obtaining important and substantial additional protection." These applications are as follows:

Moistureproofing Composition — Charch and Prindle

This is a division of the parent case serial No. 158,816 (U. S. patent No. 1,737,187) and covers specifically the moistureproofing composition.

U. S. Serial No. 308,873 — Filed Sept. 27, 1928
Last Development - Amended Sept. 27, 1928

This case is second in importance to the issued patent and every effort is being made to make it a good patent. It is too early to speculate on the success we will have.

B6348

Method & Apparatus for Coating — Church and Crairns

This application covers the process of moistureproofing Cellophane. The method claims were divided out (see serial No. 461,892) and the apparatus claims retained in this prosecution.

U. S. Serial No. 312,041 — Filed Oct. 12, 1928
Last Development - Amended July 1, 1930

This is an extremely important case and we hope to have it issued before a suit is started on the parent patent. We are making every effort to secure good claims and we think that this is possible.

Method of Coating — Church and Crairns

This is a division of application serial No. 312,041 and contains the process claims for coating Cellophane.

U. S. Serial No. 461,892 — Filed June 18, 1930
Last Development - Filing

Dr. Church has always felt that even if we lost the issued patent and the moistureproof composition case, these applications for the process and apparatus would be real hazards to a competitor. We are, therefore, exerting every effort to bring them to issue promptly and satisfactorily, and it appears that this will be possible.

Moistureproof Cellophane - Two-Stage Process — Church

This application covers a two-stage process in which the film is first coated with a mixture of a gum, a wax and a plasticiser and then coated with a lacquer.

U. S. Serial No. 388,047 — Filed Dec. 22, 1928
Last Development - Amended March 1, 1930

This is a minor case protecting an alternative way of carrying out the parent invention. There appears to be no difficulty in securing desirable claims.

Moistureproof Material & Process for Making Same — Church

This application covers the idea of impregnating the Cellophane with moistureproofing substances and then coating with a lacquer.

U. S. Serial No. 341,854 — Filed Feb. 21, 1929
Last Development - Amended April 21, 1930

This is also a minor case protecting another alternative way of carrying out the parent invention. We believe that satisfactory claims will be secured.

"The company has also obtained an exclusive license of the Groves patent #1,366,256 which covers a dope (nitrocellulose solution) containing a plurality of waxes. The license permits the company to make and use Groves' composition and strengthens its patent position.

"Applications have been filed in the U. S. Patent Office covering various modifications of moistureprpof Cellophane not only to strengthen the company's patent position but also in an endeavor to prevent competition by a similar article. These applications include the so-called smothered coatings, moistureproof gelatin and moistureproof paper."

These are as follows:

Moistureproof Cellophane (Drying Oil & Wax)

This application covers the moistureproofing of Cellophane by use of a coating of a drying oil and a wax.

U. S. Serial No. 241,265 Filed Dec. 19, 1927.

The case covered both claims for the coating composition and the coated sheet, but upon final requirement for division, the claims relating to the coated sheet were elected for prosecution and the others were canceled.

Moistureproof Gelatin **Church**

An application covering the coating of a sheet of gelatin with the composition used in Moistureproof Cellophane.

U. S. Serial No. 233,634 Filed Aug. 9, 1928
Last Development - Office Action June 28, 1930

Since the issued patent protects only coated sheets of regenerated cellulose and since we should not assume that the moistureproofing composition case will issue (altho we think it will) we have filed certain additional and minor cases, of which this is one. At the present time we are required to prove that it took inventive ingenuity to perceive that the moistureproof composition disclosed in our issued patent would also work when applied to gelatin. Experimental work is in progress to collect the necessary data, altho admittedly, the possibilities of formulating a strong argument are very poor. The fact is that it is quite obvious that the same composition would serve for gelatin sheets.

Moistureproof Paper **Church and Siemsen**

An application covering the coating of paper with the regular moistureproofing composition.

U. S. Serial No. 312,207 Filed Oct. 12, 1928
Last Development - Amended Dec. 9, 1929.

This is also a minor case designed to complete our protection. It may become an important case in view of the fact that the moistureproof composition also improves the transparency of the base and may, therefore, be useful for a moistureproof semi-transparent paper. It is too early to evaluate this case but we believe we will secure a good patent.

Coated Materials & Method of Producing Same **Siemsen**

This application covers impregnating gel Cellophane with a water-soluble softener and then applying our moistureproof coating composition.

U. S. Serial No. 408,932 Filed Nov. 21, 1929
Last Development - Filing

This case covers another way of anchoring the coating, which is not very interesting from the technical viewpoint. The application is too new to judge its merit.

Coated Material & Method of Making Same **Church, Ervin and Siemsen**

This application covers the use of an oxidised drying oil to anchor the moistureproofing composition to the cellulose.

U. S. Serial No. 409,994 Filed Nov. 26, 1929
Last Development - Filing

This is another minor case for a relatively non-important process of anchoring the coating. The case is too new to judge its merits.

Coated Material & Method of Making Same Leach and Sizemore

This application covers the use of rubber as an anchoring coating for our moistureproofing composition.

U. S. Serial No. 410,844 Filed Nov. 27, 1929
Last Development - Filing

This is still another means of anchoring the coating. The case is too new to judge its merits.

Moistureproof Material (Acetate Film) Church

This application covers the idea of moistureproofing films of cellulose acetate or other cellulose derivatives.

U. S. Serial No. 451,194 Filed May 9, 1930
Last Development - Filing

This is another minor application designed to protect our Moistureproof Cellophane situation. We think we will be able to secure this patent.

"Another application covering an entirely new form of Moistureproof Cellophane has been filed. This application covers the coating of Cellophane with a resin wax composition." Vis:

Coated Material & Method of Producing Same Church

This application covers a sheet of Cellophane and the like coated with a resin and a wax which renders it moistureproof and nontacky.

U. S. Serial No. 461,840 Filed June 17, 1930
Last Development - Filing

This marks a departure from our regular four component compositions. We think it is important both technically and patentably.

One of the problems of Moistureproof Cellophane is adhesives that will serve to seal Moistureproof Cellophane with itself and with other materials. This is an extremely difficult situation on account of the waxes employed in Moistureproof Cellophane. Accordingly a number of patent applications have been filed for adhesives we have developed and are developing for this purpose. This, to protect our market for Moistureproof Cellophane.

On account of the recent issue of the basic patent for Moistureproof Cellophane, we quote the following extract from Mr. Pritchard's opinion on this entire subject. The time limit of two years mentioned will not expire until November 26th, 1931:

"Tho the patent for the Moistureproof Cellophane ~~per se~~ has issued, there is no assurance it will not be involved in an interference with some other party. The Patent laws provide that any time within 2 years after a patent has issued, another party may copy the claims of said patent and go into interference - provided of course, the subsequent applicant makes an oath he made the invention prior to the filing date of the patentee. The time limit does not apply where an application has been copending and filed prior to the patent."

Trust the above will be found fully explanatory and if further information is desired, please advise.

J. E. HART

GENERAL MANAGER
CELLOPHANE [illegible]

ADDITIONAL MEMORANDUM

FOREIGN PATENT SITUATION
MOISTUREPROOF CELLOPHANE

We have received a patent on Moistureproof Cellophane corresponding to our United States patent #1,737,187, in Belgium, France and Italy. In Great Britain, our patent has been accepted by the Patent Office and thrown open to opposition before sealing. Wolff and Company, manufacturers of Transparit in Germany, are opposing the sealing of this British patent, but we think we can safely defend our claims and that a British patent will issue to us in due course.

We are also protected in Cuba by the registry of our United States patent and in Porto Rico, the Philippines, and Hawaii because these countries are covered by the United States patent. In addition to this, we have applications pending in Czecho-Slovakia, Denmark, Germany, Holland, Norway, Sweden, Switzerland, Japan, Canada, Argentina, Bolivia, Chile, Colombia, Equador, Paraguay, Uruguay and Venezuela. The applications covering these South American countries have been filed during this year, since our negotiations with the French gave us certain rights in South America.

All foreign patent applications relating to this basis Moistureproof patent are being prosecuted by ourselves, and under such patents, if and when issued, license to use the same will be given to Kalle and Company in their sector which includes Czecho-Slovakia, Austria, Poland and Germany and to La Cellophane for France. Should there be additional licensees under La Cellophane in other countries, it will be necessary for us to give such concerns licenses in their countries, under this patent.

In addition to this, it has been our practice, as we have filed additional patent applications in America, to offer to La Cellophane and Kalle and Company, the privilege of prosecuting for us and in our name, such applications in their countries or in their sectors, as they have felt would be of interest and of value to them. Accordingly, both Kalle and Co. in their sector and La Cellophane in France are prosecuting at this time, applications referred to previously in this American summary which are numbered as follows:

No. 298,654, 312,041	No. 303,509 312,207

In the case of applications Nos. 328,047 and 341,834, Kalle and Co. elected to prosecute in their sector but La Cellophane declined for France. In the case of applications Nos. 408,932, 409,934, and 410,244, both of these concerns declined to prosecute the claims on account of lack of interest. In addition to these applications, serials #461,840 and #461,832 have been tendered to both Kalle and Co. and La Cellophane, but so far they have not advised us whether or not they elect to prosecute these applications in their countries.

If further detailed information is desired regarding the foreign patent situation on Moistureproof Cellophane, we will endeavor to supply it on request.

J. E. HATT

GENERAL MANAGER
CELLOPHANE DEPARTMENT

Govt. Exhibit 2478
Civil action 1216.

SYLVANIA INDUSTRIAL CORPORATION

At Ex. Com. meeting on 7/9/31, J.E.H. informed the Ex. Com. about conversation he had just had with Dr. R.N.Wallach of Sylvania. The latter had heard of the Trioresyl-phosphate matter, and told Mr. Hatt they were proposing to discontinue use of this material in manufacture of their "Nymphrap", as they had developed a substitute material that was entirely satisfactory, and that they thought of announcing to the trade this substitution. He added that in their opinion their 3-way nitro-cellulose formula for their product does not infringe our M-P Cellophane patent. Dr.W. frankly implied that they would not make the announcement about the T-C-P substitution, if we would agree not to take any action in regard to their infringement of our patent. and would allow us to use their developed substituted plasticizer, Apparently, after discussion outside of meeting, it was agreed to have Mr. Hatt tell Dr. Wallach that we were not interested in the suggestion about the plasticizer; that we still proposed to defend our patent to the utmost, but that we would offer license to Sylvania to make material under our patent, at a royalty of 3% of gross sales, with proviso that Sylvania's production of M-P material would be limited to 10% of present output. (This was assumed to be around 2,000,000 pounds per month altogether, including our production, so that 10% would amount to 200,000 pounds per month, which it is understood is their present capacity from 4-casting-machines.
Dr. Wallach came back a few days later and orally rejected our offer, which had likewise been made verbally. Dr.W. shortly thereafter sailed for a 6-weeks' trip to Europe which was supposed to be mostly for pleasure.

This was orally reported to the Board of Directors at meeting on 7/24/31.

At Board meeting on 8/21/31, L.A.Y. said our position had been considerably strengthened by advice from the Patent Office that 3 more claims had been allowed, with possibility of a 4th also being granted. However, patent or patents covering these claims will not be issued until several weeks have elapsed, or say some time in the Fall. It was felt by Mr. Pritchard that actual suit against Sylvania should not be instituted until we have these claims issued in form of actual patents. B.M.M. said J.E.H. had brought up question of making it clear to Sylvania that our offer of license was definitely withdrawn, in view of our position being strengthened patentwise since offer was made. General feeling of the Board was that this would be wise thing to do, but it was left to L.A.Y. to decide what to do in the premises. L.A.Y. still felt it would be desirable for us to have Sylvania under a license agreement if possible. 8/27/31 - L.A.Y. wrote Dr. Wallach confirming our oral offer of license as above mentioned, and oral declination by Sylvania. Letter from Dr. Wallach shortly thereafter stated this was in accordance with his understanding.

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In Ex. Com. Sept. 1931 report to P.C.Ex.Com. and Cellophane Board, dated 10/20/31, statement was made as follows:-

> "We have recently had issued to us several United States patents which we are confident will materially aid our position on Moistureproof Cellophane. It now looks as if we will be in shape to formally institute suit for infringement against the Sylvania Industrial Corporation around the middle of November. In the meantime, our attention has been called to infringement of one of our recently issued patents covering moistureproofing composition by the Riegel Paper Corporation (mills in Riegelsville and Milford, N.J.) in mixture which they are using on "Diaphane", a coated glassine paper. After consultation with the Parent Company's legal dep't., it has been decided that it will be more effective to withhold sending notice of infringement to Riegel until after the Sylvania suit has actually been filed."

At Ex. Com. meeting on 11/12/31, L.A.Y. said while attending P.C.Ex. Com. meeting in Wilmington on 11/11/31, R.S.Echols has made suggestion that Judge Morris (Hugh L.) head up our legal talent regarding our patent suits covering Moistureproof Cellophane. Apparently, Judge Morris is on a retaining fee with the Parent Company who thus have first call on his services. C.R. Judge thought the idea was a good one.

11/19/31 - J.E.H. wrote Sylvania formally notifying them of infringement of our M-P patents and asking them to cease from committing any further infringing acts. This letter mentioned that we had previously called Sylvania's attention to our U.S.Patent No. 1,737,187, issued 11/26/29, and now sent Sylvania copies of 4 new U.S.Patents, issued to us under date of 10/6/31, namely, Nos. 1,826,696, 1,826,697, 1,826,698, and 1,826,699. The letter concluded that "Unless we have positive assurances that infringement has ceased, we will be obliged to take the necessary steps to protect our rights in these patents." This letter was acknowledged by Dr. R.N.Wallach, under date of 11/24/31, with advice that matter was being referred to their patent attorneys, Messrs. Watson, Bristol, Johnson & Leavenworth.

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Bill of Complaint, the first legal step in our suit against Sylvania, was signed by the President 1/28/32 and immediately filed with the U.S. District Court of Delaware. Sylvania issued a circular letter to the trade, dated 1/29/32, before they had been formally served with court notice of the suit, stating they were entirely confident of their position.

6/20/32 - I gathered from Smith of our Patent Div. that answers by Sylvania to our Bill of Complaint stressed petty legal technical details and that Mr. Pritchard interpreted this as an indication that they did not have a strong defense on the real points at issue.

About middle of June, it was learned that Sylvania had requested transfer from the Delaware to the Virginia U. S. District Court. Our legal advisers have no objection to this and, in fact, believe there may be certain advantages to us in arranging such a change of venue. It is the feeling of our legal advisers that our case is stronger than ever, and that it will be completed, so far as the U. S. District Court is concerned, before Christmas, trial being listed for the Fall Term.

Based on oral data from J.E.H., we stated in President's September Report to P.C. Ex. Com. and Cellophane Board (10/20/32) that - "Technical phases of our plans for the patent infringement suit against Sylvania are progressing, and we understand the Legal Department hopes to have court action on the suit underway during November."

DEC. 1932 (11/23/32) REPORT FROM PRESIDENT TO P.C. EX. COM. AND CELLOPHANE BOARD OF DIRECTORS contained this item - "Bill of Complaint has just been executed and will probably be filed in Virginia shortly in connection with our suit against the Sylvania Industrial Corporation covering infringement of our Moistureproof Cellophane patents."

JAN. 1933 REPORT (2/21/33) PRES. TO P.C. EX. COM. & CELLOPHANE BOARD - "Suit for infringement of our Moistureproof Cellophane patents has been re-filed against Sylvania, this time in the Virginia courts.

PROPOSED SETTLEMENT OF OUR MOISTUREPROOF CELLOPHANE PATENT SUIT AGAINST SYLVANIA INDUSTRIAL CORPORATION, INVOLVING LICENSE TO THEM, AND PROVISION FOR CROSS LICENSES UNDER ANY NEW PATENTS - See action of Cellophane Board of Directors at meeting 3/24/33, approved by P.C. Ex. Com. at meeting held on 4/5/33, and informally by majority P.C. Finance Com. on 4/6/33.

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GOV'T EXHIBIT NO. ~~2479~~
Civil Action 1216

UNITED STATES DISTRICT COURT,
DISTRICT OF DELAWARE.

DU PONT CELLOPHANE COMPANY, INC., Plaintiff, vs. SYLVANIA INDUSTRIAL CORPORATION, Defendant.	IN EQUITY On Patents Nos. 1,737,187 1,826,696 1,826,697 1,826,698 1,826,699

BILL OF COMPLAINT

The plaintiff, for its bill of complaint, alleges:

1. This suit is brought under the Patent Laws of the United States for infringement of Letters Patent.

2. The plaintiff, Du Pont Cellophane Company, Inc., is a corporation duly organized under the laws of the State of Delaware and an inhabitant of the District of Delaware, having its principal place of business in the City of New York, County of New York, and State of New York. That on information and belief the defendant, Sylvania Industrial Corporation, is a corporation organized under the laws of the State of Delaware, and an inhabitant of the District of Delaware, having its principal office in the City of New York, County of New York, and State of New York.

3. That on information and belief prior to January 3, 1927, William Hale Church and Karl Edwin Prindle, citizens of the United States, being, within the meaning of the Statutes of the United States then in force, the original, first and joint inventors of certain new and useful improvements in Moistureproof Material, duly filed in the United States Patent Office an application for Letters Patent for

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said invention, and plaintiff by lawful assignments duly recorded in the United States Patent Office became the sole owner of said invention and said application for Letters Patent, and all the requirements of the Statutes of the United States in such cases made and provided and the Rules of the Patent Office then in force having been complied with, on the 26th day of November, 1929, Letters Patent No. 1,737,187 were issued to plaintiff as assignee of said William Hale Church and Karl Edwin Prindle pursuant to said application.

4. That on information and belief prior to September 27, 1928, William Hale Church and Karl Edwin Prindle, citizens of the United States, being, within the meaning of the Statutes of the United States then in force, the original, first and joint inventors of certain new and useful improvements in Moistureproofing Composition, duly filed in the United States Patent Office an application for Letters Patent for said invention, and plaintiff, by lawful assignments duly recorded in the United States Patent Office, became the sole owner of said invention and said application for Letters Patent, and all of the requirements of the Statutes of the United States in such cases made and provided and the Rules of the Patent Office then in force having been complied with, on the 6th day of October, 1931, Letters Patent No. 1,826,696 were issued to plaintiff as assignee of said William Hale Church and Karl Edwin Prindle pursuant to said application.

5. That on information and belief prior to May 2, 1931, William Hale Church and Karl Edwin Prindle, citizens of the

United States, being, within the meaning of the Statutes of the United States then in force, the original, first and joint inventors of certain new and useful improvements in Moistureproof Material, duly filed in the United States Patent Office an application for Letters Patent for said invention, and plaintiff, by lawful assignment duly recorded in the United States Patent Office, became the sole owner of said invention and said application for Letters Patent, and all the requirements of the Statutes of the United States in such cases made and provided and the Rules of the Patent Office then in force having been complied with, on the 8th day of October, 1931, Letters Patent No. 1,826,609 were lawfully issued to plaintiff as assignee of said William Hale Church and Karl Edwin Prindle pursuant to said application.

6. That all the said inventions of William Hale Church and Karl Edwin Prindle (set forth in paragraphs 3, 4 and 5) were new and useful, not known or used by others in this country before their invention or discovery thereof, not patented nor described in any printed publication in this or any foreign country before their invention or more than two years prior to their applications, not in use or on sale in this country more than two years prior to their applications, not patented in any foreign country by them or their legal representatives on applications filed more than one year prior to the filing of their said applications in this country, and not abandoned; said patents are now in full force, which said Letters Patent, or duly authenticated copies thereof, plaintiff will produce as this Court shall direct.

7. That on information and belief prior to October 12, 1928, William Hale Church and Norman A. Craigue, citizens

of the United States, being, within the meaning of the Statutes of the United States then in force, the original, first and joint inventors of certain new and useful improvements in Apparatus for Coating, duly filed in the United States Patent Office an application for Letters Patent for said invention, and plaintiff, by lawful assignments duly recorded in the United States Patent Office, became the sole owner of said invention and said application for Letters Patent, and all of the requirements of the Statutes of the United States in such cases made and provided and the Rules of the Patent Office then in force having been complied with, on the 6th day of October, 1931, Letters Patent No. 1,826,807 were issued to plaintiff as assignee of said William Hale Church and Norman A. Craigue pursuant to said application.

8. That on information and belief prior to June 18, 1930, William Hale Church and Norman A. Craigue, citizens of the United States, being, within the meaning of the Statutes of the United States then in force, the original, first and joint inventors of certain new and useful improvements in Method of Coating, duly filed in the United States Patent Office an application for Letters Patent for said invention, and plaintiff, by lawful assignment duly recorded in the United States Patent Office, became the sole owner of said invention and said application for Letters Patent, and all of the requirements of the Statutes of the United States in such cases made and provided and the Rules of the Patent Office then in force having been complied with, on the 6th day of October, 1931, Letters Patent No. 1,826,808 were issued to plaintiff as assignee of said William Hale

Church and Norman A. Craigue pursuant to said application.

9. That all the said inventions of William Hale Church and Norman A. Craigue (set forth in paragraphs 7 and 8) were new and useful, not known or used by others in this country before their invention or discovery thereof, not patented nor described in any printed publication in this or any foreign country before their invention or more than two years prior to their applications, not in use or on sale in this country more than two years prior to their applications, not patented in any foreign country by them or their legal representatives on applications filed more than one year prior to the filing of their said applications in this country, and not abandoned; said patents are now in full force, which said Letters Patent, or duly authenticated copies thereof, plaintiff will produce as this Court shall direct.

10. That plaintiff has expended large sums of money in developing the inventions of said Letters Patent Nos. 1,737,187, 1,826,696, 1,826,699, 1,826,697 and 1,826,698, and in introducing to the public transparent moistureproof wrapping material embodying the invention of Letters Patent No. 1,737,187 and in utilizing in the manufacture thereof, the inventions of Letters Patent Nos. 1,826,696, 1,826,699, 1,826,697,and 1,826,698; that plaintiff has extensively manufactured and sold transparent moistureproof sheets embodying the invention of patent No.1,737,187 and is able to supply the public demand for said invention; that the inventions of said Letters Patent Nos.1,737,187, 1,826,696, 1,826,699, 1,826,697 and 1,826,698 have been of enormous value to the public and have

revolutionized the method of packaging materials, and plaintiff has built up a large lucrative business thereon; that the transparent moistureproof sheets embodying and/or produced by the use of said inventions have vastly improved the method of packaging articles of all descriptions, such, for instance, as cigars, cigarettes, cookies, crackers, candies, nuts, fruit and all manner of foodstuffs, and has effected very large savings to the manufacturer of such articles and to the public in the method of packaging, in the cost of the package, and in the preservation of the materials or articles wrapped therein, and that such moistureproof sheets embodying said inventions are being used in very large and very rapidly increasing quantities.

11. Plaintiff has marked all material embodying said inventions made or sold by it in full compliance with the United States Statutes.

12. The public has in general acknowledged the validity of the aforesaid Letters Patent Nos. 1,737,187, 1,826,696, 1,826,699, 1,826,697 and 1,826,698 and respected plaintiff's rights therein and thereunder.

13. That upon information and belief since the issuance of said Letters Patent Nos. 1,737,187, 1,826,696, 1,826,699, 1,826,697 and 1,826,698, and prior to the filing of this bill of complaint and within six years last past, defendant, well knowing plaintiff's rights in the matter, has been and still is within the District of Virginia and elsewhere in the United States, without leave or license of the plaintiff and in infringement of each of said Letters Patent, is making and/or using and/or selling transparent moistureproof sheets of wrapping material embodying the inventions claimed in said Letters Patent No. 1,737,187,

and/or utilising in the manufacture thereof the inventions claimed in Letters Patent Nos. 1,826,606, 1,826,607, 1,826,608 and 1,826,609, and threatens to continue so to infringe.

14. That plaintiff has given notice to the defendant of its aforesaid infringing acts and requested it to cease therefrom, and that defendant has nevertheless continued its infringing acts and threatens to continue so to do.

15. That plaintiff is informed and believes that defendant has greatly profited and is continuing to profit by its infringing acts and that the plaintiff has been greatly damaged thereby.

Plaintiff therefore prays:

1. For an injunction and a preliminary injunction pending this suit, restraining the defendant, its officers, servants, agents, attorneys, workmen and employees from directly or indirectly infringing said Letters Patent or assisting others to infringe, or any of them.

2. For costs and accounting for profits and damages and that any damages assessed may be triple.

3. For such other and further relief as to this Court may seem just.

DU PONT CELLOPHANE COMPANY, INC.

By (S) L Ô yerkes
President.

Solicitor for Plaintiff

Of Counsel for Plaintiff

STATE OF NEW YORK :
: ss.:
County of New York :

L. A. Yerkes being duly sworn, deposes and says: I am President of the Du Pont Cellophane Company, Inc., the plaintiff herein; that I have read the foregoing bill of complaint and the statements made therein contained are true of my own knowledge except as to those matters therein alleged on information and belief and as to those matters I believe it to be true; I have signed said bill of complaint as President of Du Pont Cellophane Company, Inc., and the reason why said bill of complaint is not verified by plaintiff, Du Pont Cellophane Company, Inc. is because it is a corporation.

Subscribed and sworn to before me this 26 day of January 1932.

(S) J Mason Williams

(S) L A Yerkes
President

GOV'T EXHIBIT NO. 2480
Civil Action 1216

UNITED STATES DISTRICT COURT

DISTRICT OF DELAWARE

DU PONT CELLOPHANE COMPANY, INC.,
Plaintiff,
-vs-
SYLVANIA INDUSTRIAL CORPORATION,
Defendant.

In Equity No. 992

ANSWER

TO THE HONORABLE, THE JUDGES OF THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE:

The defendant, Sylvania Industrial Corporation, saving and reserving all and all manner of objections to the bill of complaint on jurisdictional and other grounds, answers the bill of complaint herein on information and belief as follows:

1. Defendant admits that this is a suit brought under the patent laws of the United States.

2. Defendant is without knowledge or information sufficient to form a belief as to the incorporation, habitation and place of business of the plaintiff, and therefore denies the same. Defendant admits that at a time prior to the filing of said bill of complaint it was a corporation organized under the laws of the State of Delaware and an inhabitant of the District of Delaware and had an office in the City, County and State of New York, but alleges that before and at the time of the filing of the bill of complaint it had ceased doing business except to complete its corporate dissolution and denies that it is now in existence save as continued by law for prosecuting or defending suits.

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3. Defendant admits that United States Letters Patent No. 1,737,187 were issued on November 26, 1929, and United States Letters Patent Nos. 1,826,696, 1,826,699, 1,826,697, and 1,826,698 were issued on October 6, 1931, to Du Pont Cellophane Company, Inc., but defendant is without knowledge or information sufficient to form a belief as to each and every other allegation contained in paragraphs 3, 4, 5, 7 and 8 of the bill of complaint, and therefore denies the same.

4. Defendant denies each and every allegation contained in paragraphs 6, 9, 12, 13 and 15 of the bill of complaint.

5. Defendant is without knowledge or information sufficient to form a belief as to each and every allegation contained in paragraphs 10 and 11 of the bill of complaint, and therefore denies the same.

6. Defendant admits that on or about November 19, 1931 it received a letter from plaintiff charging it with infringement of Letters Patent 1,737,187, 1,826,696 and 1,826,699 and requesting it to desist from such infringement, but denies each and every other allegation contained in paragraph 14 of the bill of complaint.

7. Defendant avers that the aforesaid Letters Patent Nos. 1,737,187, 1,826,696, 1,826,699, 1,826,697 and 1,826,698 are each invalid and void for each of the reasons that

(a) the patentees William Hale Charch and Karl Edwin Prindle were not the original, first and joint inventors and discoverers of the alleged improvements de-

scribed and claimed in said Letters Patent Nos. 1,737,187, 1,826,696 and 1,826,699 or of any material or substantial part thereof, and that the patentees William Hale Church and Norman A. Craigue were not the original, first and joint inventors and discoverers of the alleged improvements described and claimed in said Letters Patent Nos. 1,826,697 and 1,826,698 or of any material or substantial part thereof; but that on the contrary long prior to the alleged respective inventions or discoveries by said patentees respectively or more than two years prior to their respective applications for said letters patent and each of them the products and processes and apparatus purporting to be patented by said Letters Patent Nos. 1,737,187, 1,826,696, 1,826,699, 1,826,697 and 1,826,698 or material or substantial parts thereof were known or used by others in this country before the respective patentees' alleged inventions or discoveries thereof, were patented or described in printed publications in this and foreign countries before the respective patentees' alleged inventions or discoveries thereof or more than two years prior to their respective applications for said letters patent and each of them; and were in public use and on sale in this country for more than two years before the respective applications for said letters patent and each of them; and were patented or caused to be patented by the respective patentees or their legal representatives or assigns in foreign countries upon applications filed more than one year prior to the filing of their said applications in this country; the prior patents and printed publications above referred to, in so far as at present ascertained, are as follows:

UNITED STATES PATENTS

Ely	88,918	Apr. 13, 1869
Spill	91,377	June 15, 1869
Spill	97,454	Nov. 30, 1869
Starr	158,188	Dec. 29, 1874
Beals	239,484	Mar. 29, 1881
Chester	360,373	Mar. 29, 1887
Annison	602,797	Apr. 19, 1898
Arkell	670,393	Mar. 19, 1901
Denselman	893,987	July 21, 1908
Pulsifer	956,602	May 3, 1910
Kniffen	1,118,193	Nov. 24, 1914
Gaumont	1,159,924	Nov. 9, 1915
Liliemfeld	1,217,024	Feb. 20, 1917
Jones	1,309,858	July 15, 1919
Flaherty	1,356,440	Oct. 19, 1920
Case	1,445,388	Feb. 13, 1923
Behan	1,521,859	Jan. 6, 1925
Ellis	1,529,056	Mar. 10, 1925
Grimm	1,614,611	Jan. 18, 1927
and application therefor filed		Jan. 14, 1925.
Serial No. 2,441.		
Fleming	1,616,819	Feb. 8, 1927
and application therefor filed		Jun. 4, 1922.
Serial No. 526,992		
Grimm	1,617,945	Feb. 15, 1927
and application therefor filed		Jan. 14, 1925.
Serial No. 2,440		
Baer	1,623,035	Apr. 5, 1927
and application therefor filed		July 3, 1924.
Serial No. 723,957		
Flaherty	1,629,999	May 24, 1927
and application therefor filed		May 23, 1921.
Serial No. 471,931		
Whitney et al.	1,682,692	Aug. 28, 1928
Serial No. 686,464		
and application therefor filed		Jan. 15, 1924.

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Seidell et al. and application therefor filed Serial No. 36,107	1,753,147	Apr. 8, 1930 June 10, 1925.
Hochstetter and application therefor filed Aug. 27, 1927, Serial No. 215,846	1,772,081	Aug. 5, 1930

BRITISH PATENTS

Cormides	745	of 1855
Parkes	2,358 (1) 2,359	of 1855
Barnwell	2,219	of 1860
Aswerth	13,836	of 1890
Friedlander	23,547	of 1909
MacDonald	714	of 1914
Groves	128,974	Sept. 6, 1917
Wickel	229,161	Feb. 19, 1925

GERMAN PATENTS

Behering	86,938	July 27, 1895
Dittmar	266,384	Aug. 15, 1911

FRENCH PATENTS

Danser	410,725	May 27, 1910
Ballard & Cie	457,925	Sept. 29, 1913
LaGrange	463,613	Feb. 27, 1914
Tesse	908,975	Oct. 28, 1920

PUBLICATIONS

Paint Manufacturer's Association of the United States "Speed of Evaporation of Solvents from Pyroxylin Lacquer Coatings" - H. A. Gardner and H. C. Parks, Circular No. 218 - November 1924.

American Gas Engineering Journal, Vol. CVII, No. 21 New York, Nov. 24, 1917, pp. 445-446. "The Use of Ovens in Lacquering, Tin Plate Decorating and Similar Purposes" - Gilbert C. Shadwell.

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and many others which this defendant prays leave to insert in this answer by amendment as soon as discovered; the names and addresses of persons alleged to have invented or to have had prior knowledge of and used the things patented by said Letters Patent within the United States are the patentees of said United States patents above listed at the respective addresses given therein and elsewhere in the United States, and the authors of said publications, and others not at present ascertained but which defendant prays leave to insert in the answer by amendment when discovered;

(b) the alleged inventions thereof respectively do not constitute patentable inventions, improvements or discoveries within the meaning of the patent law in view of the prior state of the art, as disclosed in the various patents and publications hereinabove enumerated and in view of what was common knowledge of those skilled in the art at the time of the alleged inventions of the same by said patentees;

(c) the processes and products and apparatus alleged to have been patented by said letters patent and each of them had been abandoned to the public prior to the alleged respective applications for said letters patent or prior to the issuance of said patents;

(d) the descriptions and specifications contained in said letters patent and each of them were made to set forth less than the whole truth relative to the alleged inventions thereof respectively;

(e) the descriptions contained in said letters patent and each of them are ambiguous and indefinite and the disclosures thereof of such alleged inventions are not in such full, clear, concise and exact terms as to enable any person skilled in the art or science to which they

respectively appertain or to which they are respectively most nearly connected to make, construct, compound and use the same;

(f) each and all of the claims of said letters patent are excessive in breadth and scope and have not been cured in a reasonable time by disclaimer;

(g) each and all of the claims of said letters patent are vague, ambiguous and indefinite and fail to particularly point out and distinctly claim the part, improvement or combination claimed by the patentees respectively as their invention or discovery;

(h) the alleged inventions described and claimed in said letters patent respectively are not substantially the same inventions that were described and claimed in and comprehended by the respective applications for said letters as originally filed in the United States Patent Office, but after the applicants named in said letters patent respectively had made oath to said respective original applications and after the latter had been filed in the United States Patent Office substantial and material additions thereto, variations and changes therein were made and new matter was unlawfully introduced in said applications respectively;

(i) each and all of the claims of said letters patent do not claim a valid and patentable combination, but embrace mere aggregations of elements or steps forming no true and proper combination and have no cooperation in a patentable sense and are not patentable in law.

8. Defendant avers that in view of the prior art and the wording of the claims of said Letters Patent Nos. 1,737,187, 1,826,696, 1,826,699, 1,826,697, and 1,826,698

and each of them and of the proceedings in the Patent Office in connection therewith, said letters patent and each of them are of such limited scope that they do not cover any process employed or product or apparatus manufactured, used or sold by this defendant.

9. Defendant avers that if any of said Letters Patent Nos. 1,737,187, 1,826,696, 1,826,699, 1,826,697 and 1,826,698 is given a sufficiently broad interpretation to cover any process used or any product or apparatus made, used or sold by defendant, then such patent is invalid and void in view of the prior state of the art and in view of the prior patents and publications referred to in paragraph 7(a) of this answer.

10. Defendant avers that said Letters Patent No. 1,737,187 is now in interference in the Patent Office under Section 4904 of the Revised Statutes of the United States wherefore said patent is without prima facie validity and plaintiff is without prima facie title to the invention purporting to be claimed in said patent.

11. Defendant avers that it has not at any time infringed or threatened to infringe said letters patent or any of them nor has it in any way infringed or threatened to infringe any rights whatsoever of the plaintiff or caused said plaintiff any damage or injury whatsoever and that plaintiff has no right of action against defendant.

12. Defendant avers that prior to the filing of the bill of complaint it had ceased to manufacture, use and/or sell any products, processes and/or apparatus whatsoever and had ceased all corporate activity except for

effecting legal dissolution in which it was then engaged, that it was not then threatening and had no intention of continuing or resuming any such manufacture, use or sale and has not since resumed or threatened to resume any such manufacture, use or sale, and avers that if plaintiff has any cause of action against defendant (which defendant denies) plaintiff has a plain, adequate and complete remedy at law and therefore this Court is without jurisdiction in equity in this cause and defendant further avers that the bill of complaint herein fails to set forth facts sufficient to constitute any cause of action at law or in equity.

WHEREFORE, defendant prays:

1. That the bill of complaint herein be dismissed;

2. That defendant be awarded its costs and that it may have judgment therefor;

3. That the defendant may have such other and further relief as to the Court may seem just.

SYLVANIA INDUSTRIAL CORPORATION

By Watson, Bristol, Johnson & Leavenworth
Its Attorneys

George Wharton Pepper

Leonard A. Watson

Lawrence Bristol

Clair V. Johnson
Of Counsel

Dated: April 1, 1932.

3199 3375

Duit Exhibit 2482

February 18, 1931
February 18th, 1931.

TO: THE EXECUTIVE COMMITTEE

FROM: THE CELLOPHANE COMPANY

COMPETITIVE MOISTUREPROOF MATERIAL

A day or two ago, I advised the members of the Executive Committee, informally, of a visit to us made by Dr. Roger Wallack, President of the Sylvania Industrial Corporation, manufacturers of SYLPHRAP, who left with me a small lot of experimental samples of what they are proposing to market as a moistureproof material.

The Doctor said, in view of our informal advice to him at the time of the issuance of our moistureproof patent, he was returning the courtesy in showing us the material they anticipated producing, with the thought of advising us that in their judgment, the material was entirely outside our patent, and while he did not say so, this was based on the assumption that the broad, basic product claims of our patent were assumed to be invalid.

He advised me that after consideration of our patent at the time it was given him and a review of the file wrapper, they had felt obliged to discard the work they had done up to that time, and approach the subject from a new angle. Apparently, they are assuming the position that the broad basic claims will not hold up; therefore, they evaded the narrow claims relating to the nitrocellulose base plus gum, plus wax and plasticizer to the extent that they have provided a coating for their material that consists of a Vinyl resin base, but containing wax, gum, and plasticizer.

In turn, after considering this casually, we felt it proper to return the call of Dr. Wallack, as representing the Sylvania Industrial Corp'n, to advise him that while we found his proposed product of considerable interest, nevertheless, our reaction was that we would be obliged to enforce our patent, and that we were advising him of this informally, accordingly.

He told me that they had, of course, considered the possibility of inviting litigation in this matter, but on advice of their patent counsel (whom he told me was Mr. C. B. Townsend, patent consultant for the Union Carbide and Carbon Co., and who formerly did the work for the Grasselli Dyestuffs Corp'n with which Dr. Wallack was connected) they felt that they were entirely justified in assuming that the broad claims were invalid and that having evaded the use of nitrocellulose, as specified in the narrow claims, they would be permitted to proceed.

He read me part of an opinion from Mr. Townsend which opinion is founded very largely, on a decision of the Supreme Court of the United States under date of May 14th, 1928 in the case of the Holland Furniture Company vs. Perkins Glue Company, Fed. 277 U.S. 245-3720 G. 517. 1928 - which he told me their counsel had advised was the most nearly an identical case in reference to the broad claims and their bearing on the specific claims, to the details of our patent position, that he could have hoped to find. Their patent counsel evidently advised them, also,

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that the trend of decision in this case was such as to indicate [illegible] of construing of patent law.

Meanwhile, the samples submitted have been examined by our Technical Department and they report impermeability factors on one sheet of 84 and on another of 66. These degrees of impermeability are well inside the claims of our patent, but our best thought is that our present material averages consistently in excess of 200 so that it would seem that their quality of moistureproofness is not equal to our own.

In the conversation with Dr. Wallack, he informed me that their use of wax was in much smaller volume than our own, and in fact, smaller than the low point of the range specified. This may, to some extent, account for the lower impermeabilities of their film as related to our own.

Their product is not in production as yet, but they advised me that they expected it to be within a period of approximately two weeks, and so we assume the Executive Committee will want to advise as to the action to be followed when it does come on the market, and the Cellophane Department would appreciate definite recommendation from the Executive Committee as to how this is to be handled in its legal aspects:- whether the entire detail of this shall be communicated to Mr. Pritchard with the thought that he will carry thru on the case, representing us as counsel in litigation, etc., or whether, perhaps, we should arrange to bring Mr. Pritchard and proper representatives of the Wilmington Legal Department together on it so that they may be fully informed in the preliminary stages of this situation, in case it should develop into suit later.

Perhaps the Committee may feel that they would prefer that the Wilmington Legal Department handle it entirely. If so, an expression to this effect would be appreciated.

On leaving, Dr. Wallack remarked that he had hoped they might avoid the cost of litigation on this and settle it amicably, but "perhaps that may come later". This is the only reference he made to indicate any possibility of considering any further development such as a license or consideration of it, and it may be that they have deemed it advisable not to make further reference to this until after it became apparent whether or not action against them would be definitely instituted in the form of a suit.

All the above is for the Committee's information on this subject to date, with the thought that the Committee will want to indicate to whom we shall look for legal guidance and counsel in bringing this matter to issue.

J. E. Hatt

J. E. HATT

GENERAL MANAGER.

L

GOVT EXHIBIT NO. 2483
Civil Action 1216

July 13, 1931.

CELLOPHANE COMPETITIVE SITUATION

We offered Dr. Wallach of the Sylvania Industrial Corporation verbally the following basis for permitting him to continue the manufacture and sale of moistureproof Nymphwrap without patent suit by us:

1st. - He to acknowledge the validity of our moistureproof patents.

2nd. - We to give him a non-exclusive license under all our present and future moistureproof patents.

3rd. - He to give us an exclusive license under any moistureproof patents that he may have or may acquire later.

4th. - Sales of moistureproof by him to be confined to the U.S.

5th. - He to pay us a royalty of 8% of his gross published selling price.

6th. - His sales of moistureproof to be confined to approximately 10% of the total amount of our sales of moistureproof.

L.A.Y.

GOV'T EXHIBIT NO. 2485
Civil Action 1216

C-6

DU PONT CELLOPHANE COMPANY, INC.

EMPIRE STATE BUILDING
350 FIFTH AVENUE
NEW YORK, N.Y.

OFFICE OF THE PRESIDENT

August 11, 1932.

Mr. W.S. Carpenter, Jr., Vice-President,
E.I. du Pont de Nemours & Company,
Wilmington, Del.

Dear Walter:

I am afraid that I do not see eye to eye with you on this Cellophane-Sylvania matter.

In the first place may I correct your letter of the 9th. The royalty which we offered Wallach was 3% (not 3¢) of the gross selling price, which at that time was around 75¢ per pound, or 2.25¢ per pound royalty. On the present basis of around 64¢, the royalty would be 1.92¢ per pound.

It is obvious that the difference in paying a royalty of 4, 5 or 6¢ a pound, as you have in mind, is one thing when the article is selling for 75¢ and quite another thing when it is selling for 64¢, and may go lower. This is the reason why, in spite of Mr. Mudge's change in attitude as set forth in the second paragraph of your letter indicating that we could fix both quota and price, my point of view is to keep away from the fixing of price, as I feel it would be an entangling alliance, inasmuch as Sylvania's idea naturally would be to keep the price up whereas our general policy is to keep it down.

I think it is clear that Wallach would, as he did, object to our 10% restriction, and also that he would not object to the 3% royalty. However if the royalty had been 4% or 5% I think he would have objected to both.

I cannot conceive of Sylvania operating under the suggestions that you have made, namely, a royalty from 5¢ a pound up, unless we would in turn agree to maintain a high price on Cellophane or even to raise it. This latter policy is of course directly against our general plan which we have followed for years and which we all believe to be the one to follow in the future, namely, the gradual reduction of prices rather than their increase. It seems clear to me that Wallach cannot pay 5¢ a pound

royalty on an article that sells for 64¢ per pound, put any money in investment in plants and buildings, and run the risk of having us at any time reduce the selling price to 60¢ or 55¢ or what-not.

Besides all this, we are in the Cellophane business and I think the more Cellophane we make the better off we are. Wallach doesn't advertise Cellophane, as you know, and your suggestion would almost amount to our being in the banking business and collecting a royalty for the sale of increased quantities of Sylphwrap.

I think there is another rather serious objection to your proposal of lowering the quota and raising the royalty, although the argument is a good deal the same as set forth above. If we sold Sylvania a royalty and The Viscose Company or anybody else came along and wanted a royalty, it might be embarrassing to refuse it. Assuming that we did offer any newcomers a royalty on the same basis as Wallach, it seems to me it would be a good deal better to have that royalty based on a smaller quota than it would be to attempt to get the high royalty, because in the latter case the high royalty would bring up the same question again of a high selling price.

I will be glad to talk to you further about this on Monday or sooner if I see you, but I still feel that the other line of attack is very much better; that is, to keep the royalty low but also to keep the output low and be perfectly free with the selling price.

Yours very truly,

LAY-ML

L. A. Yerkes

GOV'T EXHIBIT NO. 2486
Civil Action 1216

8-6

cc L. du Pont
C. R. Mudge
J. T. Brown
F. Sparre.

August 9 1932

L.A. Yerkes

Mr. L. A. Yerkes, President,
Du Pont Cellophane Company,
New York, N. Y.

Dear Lee:

I have been giving a little thought to the advice that Don gave me the other day indicating possibility of settlement of the Cellophane patent suit with Sylvania. This will, of course, precipitate a reconsideration on our part of the terms and conditions under which we would be willing to license Sylvania.

In talking this over with Mr. Mudge yesterday, in a very preliminary way, he was of the feeling that it would probably be permissible for us to enter into an agreement with Sylvania which would prescribe division of the trade and the fixing of prices. While this involves the case of patents which have not been adjudicated by the courts, he feels that our patent position in this case is sufficiently strong to warrant such a procedure, particularly in view of the good faith of the participants, by which I understand him to mean that we would enter into such an agreement because of our positive belief in the validity of the patents and would not be using the patents granted merely as a subterfuge for a price agreement. It is my recollection that this is a change in the viewpoint of the Legal Department with respect to this since we had it up before.

It is my recollection that on our previous negotiations we indicated to Mr. Walsh our agreement to licensing them provided his output did not exceed 10% of our own and provided further that he paid us a royalty of 2¢ per pound on the moisture proof. That was not acceptable to Mr. Walsh at that time. Since that time he has somewhat increased his participation in this market, which I presume would tend to make him less disposed to accept the original offer. On the other hand, he may have a different impression with respect to the strength of our patent situation which may make him feel more disposed to accept our previous terms. You are probably a better judge of this than I can be.

AT:6372

I presume there is a royalty figure per pound which we might ask of him which would make the restriction of his output less important to us on the general principle that the larger the royalty per pound that he pays us the less difference it makes to us whether we supply that quota or whether he supplies it. I am citing some figures below by way of explaining this point, though the figures which I use are not accurate but merely used by way of illustration.

Let us assume that the Cellophane business is going to gradually increase and to an extent that additional plants will have to be installed from time to time to supply the growing market. Let us assume further that the investment required per pound of output per year is 70¢, and that over a period of years we should expect to make 15% return on our investment, which would be the equivalent of a profit of 10.5¢ per pound. If we assume that money is worth 6%, then the cost of money required for this investment would be 6% of 70¢ or 5.0¢ per pound. On this basis the profit to us, over and above the cost of money, would be about 5¢ per pound and if, therefore, the royalty should be fixed at 5¢ per pound we would not suffer materially if Sylvania's quota were somewhat increased over the original figure of 10%.

It occurs to me that Sylvania may be very much adverse to our clamping down the lid too tight on their quota. Might it not be possible for us to meet them part way in this matter by increasing the quota somewhat but providing for a larger royalty in the higher brackets in that quota. For example, we might place a quota up to 10% on the basis of 3¢ royalty, from 10% to 15% on a 4½¢ royalty, and from 15% to 30% on a 6¢ royalty. Understand that these figures are purely illustrative and require considerable study before final settlement.

In connection with this matter we should probably take into consideration that our present return is in excess of 15% on the moisture proof product. Also, the plant investment with improved efficiency will be less per pound of output than heretofore, and the future price schedules will probably be somewhat altered.

I am merely passing these thoughts along while I have them in mind for such consideration as you may feel they are worth.

Yours sincerely,

GOV'T EXHIBIT NO. 2487
Civil Action 1216

THIS AGREEMENT made at New York, N. Y., this 26th day of April, 1933, by and between DU PONT CELLOPHANE COMPANY, INC., a corporation organized and existing under the laws of the State of Delaware, and having its principal place of business in the City of New York, State of New York, hereinafter called "Du Pont", and SYLVANIA INDUSTRIAL CORPORATION, a corporation organized and existing under the laws of the State of Virginia, having its principal place of business in the City of New York, State of New York, hereinafter called "Sylvania",

WITNESSETH:

WHEREAS, Du Pont is the grantee and present owner of United States Letters Patent 1,737,187, issued on November 26, 1929, and of the several United States Letters Patent numbered respectively 1,826,696, 1,826,697, 1,826,698, 1,826,699, all issued on October 6, 1931 (hereinafter referred to as the present Du Pont patents); and

WHEREAS, Sylvania and Du Pont are each the assignees and present owners of certain pending applications for United States letters patent relating to thin transparent moistureproof flexible sheet materials; and

WHEREAS, suits are now pending in the District of Delaware and in the Eastern District of Virginia, brought by Du Pont against Sylvania alleging infringement of the aforesaid present Du Pont patents; and

WHEREAS, the parties are desirous of effecting a settlement of said litigation and the issuance of licenses under certain terms and conditions hereinafter contained, and the parties severally represent that they have not given or promised any assignment or license to others to perform any of the acts hereby licensed or to be licensed:

NOW, THEREFORE, in consideration of the mutual promises, covenants, and undertakings herein set forth to be mutually kept and performed by the parties hereto, and in further consideration of the royalties to be paid as herein provided, it is hereby mutually agreed as follows:

1. Du Pont hereby grants to Sylvania a non-exclusive license to manufacture, import and sell within the United States of America, and its territories and possessions present and future, an article of manufacture comprising a sheet or film of regenerated cellulose combined with a moisture-proofing composition and in said manufacture to utilize the inventions disclosed and/or claimed in any or all of the aforesaid present Du Pont patents, but not otherwise. The term "regenerated cellulose" as used herein shall include any cellulose materials that are or can be obtained by precipitation, recovery or coagulations from an aqueous or an alkali-aqueous solution.

2. Du Pont furthermore agrees to grant to Sylvania, at the latter's election, a license or licenses under any future patent or patents granted to or acquired by Du Pont prior to October 6, 1948, where the inventions claimed therein are concerned with the manufacture of a sheet or film of regenerated cellulose combined with a moistureproofing composition and fall within the scope of one or more of the aforesaid present Du Pont patents, said license or licenses to be non-exclusive and of the same scope as provided in the license of Paragraph 1.

3. Sylvania likewise agrees to grant to Du Pont, at the latter's election, a license or licenses under any future patent or patents granted to or acquired by Sylvania prior to October 6, 1948, where the inventions claimed therein are concerned with the manufacture of a sheet or film of regenerated cellulose combined with a moistureproof-

ing composition and fall within the scope of one or more of the aforesaid present Du Pont patents, said license or licenses to be non-exclusive and of the same scope as provided in the license of Paragraph 1.

4. It is understood that neither party shall be under any obligation to issue such licenses under such future patents where by the terms of acquisition or possession said party is prohibited from granting such license, but each party agrees that in so far as may be reasonably possible adequate license rights under reasonable terms for the other will be provided for during negotiations for acquisition of rights under patents referred to in the preceding two paragraphs, but any expense that may be necessary for the acquisition of such rights shall be borne by the party for whose benefit they are acquired provided the latter's consent thereto is first obtained. In respect to future patents originating from the conceptions and work of their own employees and inventors, each party agrees to acquire such title thereto upon issuance as to afford the other the opportunity of electing to acquire a license thereunder as herein provided. The granting of the licenses which are the subject matter of this agreement shall not obligate the Licensee to operate thereunder, and said licenses will not carry with them the right to sublicense others thereunder or to assign said licenses or any of them, except as provided in Paragraph 16 hereof.

5. The duration of all licenses granted pursuant to this contract shall extend to October 6, 1948, inclusive of licenses under all future patents referred to in Paragraphs 2 and 3 above, provided, however, that the licenses under future patents will continue beyond said date as to all patents under which either of the parties has actually

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begun manufacture and sale on a commercial scale prior to October 8, 1948, and will thereafter extend during the life of such patents, unless this contract shall be terminated as provided hereinafter. Election by either party to take a license under a future patent or future patents must be made within three (3) months of receipt of notice from the party owning the patent to exercise the right of election, otherwise, the right to acquire a license under the patent so noticed shall be deemed terminated. Both parties agree promptly upon the grant of any United States letters patent which may be subject to the provisions of Paragraphs 2 or 3 hereof to give written notice of the same to the other party.

6. Sylvania agrees to pay Du Pont, during the term of this contract and of any license granted to Sylvania thereunder, a royalty of two percent (2%) of the net selling price of all licensed articles or products as recited in the remainder of this Paragraph 6 sold by Sylvania for use within the United States, its territories and possessions present and future. This royalty will be paid on all sheets or films of regenerated cellulose combined with a moistureproofing composition and characterized by a moistureproof quality equivalent to its ability to resist the diffusion of water vapor therethrough seven (7) times or more as effectively as uncoated sheets or films of regenerated cellulose, when tested under the following standard conditions: The sheet or film in question is hermetically sealed with beeswax across the opening of a shallow glass dish, 25 cc. of water at 45°C. is introduced through an opening made at the circumference, which is then resealed, the dish placed in an oven provided with a circulation of continuously dried air at 38.5°C. for 24 hours. The loss in weight in water, compared with a similar test on the uncoated or untreated sheet, will provide the basis of comparison. For the purpose of

further defining the method of determining the moisture-proof value of said material on which royalties shall be paid, reference is made to the affidavit of W. H. Church of record in the prosecution of patent 1,737,187, the pertinent parts of which for this purpose, as shown by the copy hereunto annexed and marked Exhibit A, are incorporated herein and made a part of this agreement.

7. The term "net selling price" wherever the same occurs in this agreement shall be construed to mean the gross selling price less freight (if paid by the seller), cash and/or trade discounts, and sales taxes or excise taxes (if paid by the seller), but without other deductions of any kind or description except that discounts shall be deducted when made by reason of goods being off-grades and except that no royalty whatever shall be due when off-grades such as roll ends, plain white thirds, and colored seconds are, by reason of their quality and market conditions, sold at or below the net selling price of corresponding grades of non-moistureproof sheets of regenerated cellulose currently sold by the seller.

8. If Sylvania shall elect to acquire a license or licenses under a future patent or patents of Du Pont pursuant to the provisions of Paragraph 2, Sylvania shall pay therefor in addition to the royalty provided in Paragraph 6 a royalty of two percent (2%) of the net selling price of such licensed articles or products sold by Sylvania for use within the United States, its territories and possessions present and future, provided that the said two percent (2%) royalty shall not be paid by Sylvania for making, importing or selling moistureproof regenerated cellulose sheets or films made by operating under any claim of any

such future patent which merely covers,

(a) machinery; or

(b) omitting one or more of the classes of components utilized in said present Du Pont patents; or

(c) a product or process the patentable novelty of which consists merely in the use of one or more unpatented specific substances of a class falling within the general broad classification of one or more of the four classes of components utilized in the present Du Pont patents; or

(d) products made or processes used commercially and continuously by Sylvania during the two (2) months last prior to this agreement.

Save as above provided, any claim of any such future patent covering, however, radically different processes as, for example,

(1) adding a substance which is patented to Du Pont or of a class outside the four classes of components mentioned in said present Du Pont patents where the addition of said substance would materially cheapen or improve the process and/or the finished product; or

(2) involving a special treatment of the regenerated cellulose prior to moistureproofing or the addition of an intermediate coating or coatings; or covering

(3) in general a distinct departure in process or product from those described and claimed in the said present Du Pont patents,

shall require the two percent (2%) royalty provided in this paragraph in addition to the two percent (2%) royalty required to be paid by Sylvania pursuant to the provisions of Paragraph 6. It is understood and agreed that in the event Sylvania shall elect to acquire a license under more than one future

patent as provided in this section, no cumulative increments of two percent (2%) shall be required for the additional patents as to any particular product.

9. If Du Pont shall elect to acquire a license or licenses under a future patent or patents of Sylvania pursuant to the provisions of Paragraph 8, Du Pont shall pay therefor a royalty of two percent (2%) of the net selling price of such licensed articles or products sold by Du Pont for use within the United States, its territories and possessions present and future, provided that the said two percent (2%) royalty shall not be paid by Du Pont for making, importing or selling moistureproof regenerated cellulose sheets or films made by operating under any claim of any such future patent which merely covers,

(a) machinery; or

(b) omitting one or more of the classes of components utilized in said present Du Pont patents; or

(c) a product or process the patentable novelty of which consists merely in the use of one or more unpatented specific substances of a class falling within the general broad classification of one or more of the four classes of components utilized in the present Du Pont patents; or

(d) products made or processes used commercially and continuously by Du Pont during the two (2) months last prior to this agreement.

Save as above provided, any claim of any such future patent covering, however, radically different processes as, for example,

(1) adding a substance which is patented to Sylvania or of a class outside the four classes of components mentioned in said present Du Pont patents where the addition of said substance would material-

ly cheapen or improve the process and/or the finished product; or

(2) involving a special treatment of the regenerated cellulose prior to moistureproofing or the addition of an intermediate coating or coatings; or covering

(3) in general a distinct departure in process or product from those described and claimed in the said present Du Pont patents,

shall require the said two percent (2%) royalty. It is understood and agreed that in the event Du Pont shall elect to acquire a license under more than one future patent as provided in this section, no cumulative increments of two percent (2%) shall be required for the additional patents as to any particular product.

10. Sylvania agrees to keep records of all articles imported and/or sold under the provisions of this agreement and to make to Du Pont quarterly reports showing the quantity of goods so imported and/or sold and returns (credits allowed for returns being deductible for royalty accounting) and the respective royalties due thereon, according to the terms of this agreement. The first report shall be rendered as of June 30, 1933, on all items imported and/or sold between the date of this contract and said June 30, and quarterly reports will be rendered to Du Pont thereafter accompanied by a sworn statement of a responsible officer of Sylvania. Du Pont shall have the right at any time within business hours to have a certified public accountant of its own selection examine said record of Sylvania's operations. Du Pont likewise agrees to keep a record of all articles imported and/or sold and returns (credits allowed for returns being deductible for royalty accounting) and the respective royalties due thereon according to the terms of this agreement. Such

Du Pont records shall be subject to inspection during business hours by a certified public accountant appointed by Sylvania, and Du Pont agrees to render quarterly reports covering such operations accompanied by a sworn statement of a responsible officer of Du Pont. Royalties accrued and due to be paid by either party hereto shall be paid quarterly with the submission of the quarterly report, and the latter shall be submitted within thirty (30) days after the end of the respective quarterly period.

11. The royalty payments hereinbefore required to be paid by Sylvania as stipulated in Paragraphs 6, 7, and 8 shall be increased by the amount of twenty cents (20¢) per pound, or by thirty percent (30%) of the net selling price of said articles (whichever amount is the greater), on all such licensed articles sold by Sylvania for use in the United States, its territories and possessions present and future and constituting quantities so sold by Sylvania exceeding twenty percent (20%) of the combined annual sales during the year 1933 of Du Pont and Sylvania in the United States, its territories and possessions present and future, of moisture-proof regenerated cellulose as defined and licensed by Du Pont herein and of any similar product as defined hereinafter in this paragraph, and for each year for a period of nine (9) years subsequent to 1933 one percent (1%) will be added to said twenty percent (20%) to mark the limit for the corresponding year above which the additional royalty of twenty cents (20¢) or thirty percent (30%) will be paid. For example, said additional royalty of twenty cents (20¢) or thirty percent (30%) shall apply only on Sylvania's licensed sales during the year 1934 in excess of twenty-one percent (21%) of said combined annual sales of Du Pont and Sylvania

in the United States during the year 1934, and on Sylvania's licensed sales during the year 1935 in excess of twenty-two (22%) percent of said combined annual sales during the year 1935, and so forth. The similar product referred to herein is defined as a transparent base (but unless within the license of Paragraph 1 above, excluding nitrocellulose, cellulose acetate and its homologs, cellulose ethers, translucent bases of cellulose fibres or paper) moistureproof, or made moistureproof by a coating or otherwise. After 1942 the percentage of said combined sales which Sylvania may make without imposition of said additional royalty shall be twenty-nine percent (29%) in each year. Such additional royalties will be computed on an annual and not on a quarterly basis, and payment shall be made by January 30th of each year of any additional amount of royalty that has accrued and become due for the immediately preceding year according to the provisions of this paragraph. Sylvania and Du Pont shall each keep such records regarding the sales of the recording party and shall permit such examination of the same by the other party hereto as shall be necessary to determine the said additional royalty that may be due under the provisions of this paragraph.

12. The royalty payments hereinbefore required to be paid by Du Pont as stipulated in Paragraph 9 shall be increased by the amount of twenty cents (20¢) per pound or by thirty percent (30%) of the net selling price of said articles (whichever amount is greater) on all such licensed articles sold by Du Pont for use in the United States, its territories and possessions present and future, and constituting quantities so sold by Du Pont exceeding eighty percent (80%) of the combined annual sales during the year 1935 of

Du Pont and Sylvania in the United States, its territories and possessions, of moistureproof regenerated cellulose as licensed by Sylvania under Paragraph 9, and for each year for a period of nine (9) years subsequent to 1933, one percent (1%) will be deducted from said eighty percent (80%) to mark the limit for the corresponding year above which the additional royalty of twenty cents (20¢) or thirty percent (30%) will be paid. For example said additional royalty of twenty cents (20¢) or thirty percent (30%) shall apply only on Du Pont's licensed sales during the year 1934 in excess of seventy-nine percent (79%) of said combined annual sales of Du Pont and Sylvania in the United States during the year 1934, and on Du Pont's licensed sales during the year 1935 in excess of seventy-eight (78%) percent of said combined annual sales during the year 1935, and so forth. After 1942 the percentage of said aggregate sales which Du Pont may make without imposition of said additional royalty shall be seventy-one percent (71%) in each year. Such additional royalty shall be computed on an annual and not on a quarterly basis and payment shall be made by January 30th of each year of any additional amount of royalty that has accrued and become due for the immediately preceding year according to the provisions of this paragraph. Sylvania and Du Pont shall each keep such records of the sales of the recording party and shall permit such examination of the same by the other party hereto as shall be necessary to determine the said additional royalty that may be due under the provisions of this paragraph.

13. In the event that infringement of any of the patents under which a license has been given and accepted by the parties hereto is commenced and continued by a third party engaged in the production and/or sale of sheets or films of moistureproof regenerated cellulose as defined in Para-

graph 1 hereof to an extent and in a manner which adversely and substantially affect the sales of licensed material by the licensed party (Licensee), said party may give to the licensing party (Licensor) written notice of such infringement together with evidence of its existence and of its adverse and substantial effect on Licensee's sales, and the notified Licensor shall then either,

(a) within one (1) month admit the existence of such infringement and its adverse and substantial effect on Licensee's sales, in which event the Licensor shall within a further period of three (3) months initiate and diligently conduct steps to stop such infringement by suit, or effect a settlement approved in writing by Licensee; or

(b) within one (1) month fail to admit the existence of such infringement or its adverse and substantial effect on Licensee's sales, in which event if the Licensee so elects the disputed question shall be referred to arbitration, as provided in Paragraph 19 of this agreement.

In the event the existence and adverse and substantial effect of such infringement is admitted by Licensor under provision (a) immediately above or is found by arbitration under provision (b) immediately above, and Licensor within the three (3) months fails to sue to stop such infringement or fails to stop such infringement by settlement as under provision (a) immediately above, then Licensee shall have the following options:

(1) discontinuing thereafter the payment of any royalty otherwise payable to the Licensor under any

patent claims so infringed (of any patents mentioned in Paragraphs 1, 2 and 3) so long and only so long as Licensor continues to fail to act to stop such infringement by suit or fails to stop such infringement by settlement as under provision (a) immediately above; provided, however, that Licensee shall not have the option or right of discontinuing payment of royalty otherwise payable to the Licensor under any patent claim or claims which cover Licensee's process and/or product but which in the mutual opinion of the parties or in the reasonable opinion of the arbitrators do not cover the process and/or product of such infringing third party;

(2) if the infringement is as to patents mentioned in Paragraph 1 (but not if merely to Paragraphs 2 and 3), of terminating this agreement and all rights, licenses and obligations of both parties hereunder except for the report and immediate payment of all royalties which have accrued up to the date of such termination;

(3) if the infringement is as to patents mentioned in Paragraphs 2 or 3 (but not those of Paragraph 1), filing suit itself against said infringer in the name of Licensor and/or Licensee.

Any and all sums recovered from infringers on patents licensed hereunder hether by judgment, decree, settlement or otherwise, shall be applied first, to the reimbursement of the party or parties (if any) bringing suit against such infringer for the expenses incurred in such suit; second, for the reimbursements

of the party owning such patent for expenses not otherwise reimbursed in any other suits which have previously but during the period of this agreement been prosecuted against infringers of said patent; and third, any balance shall be divided between the parties, Sylvania receiving the same percentage thereof as the percentage of sales which are free from the additional royalty provided currently by Paragraph 11 hereof, and Du Pont receiving the remainder. Whenever a Licensor has brought and is prosecuting with diligence one suit against an infringer of a patent licensed by said Licensor hereunder, said party shall have no duty to bring any other concurrent suit on such patent against infringers, and the Licensor shall be relieved as to such patent of any other obligation under provisions (a) and (b) recited in this paragraph, and the Licensee shall have as to such patent none of the options (1), (2), or (3) recited in this paragraph above, during such prosecution and for a period of three (3) months after the final termination (save for accounting) of such suit.

14. If in any suit for infringement of a patent or patents instituted pursuant to the preceding paragraph, any of the claims of said patents shall be held by a U.S. District Court to be invalid or not infringed, the interpretation placed upon the claim or claims by the Court shall be followed by the parties hereto in determining whether royalties are due under said patent or patents, from and after the date of entry of the decree of such Court, and royalties on business done thereafter will be payable by Licensee only in accordance with such interpretation, until and unless the

same shall be modified or reversed by a tribunal of Court decree in the same Circuit or by the U. S. Supreme Court, in which event royalties shall thereafter be paid in accordance with such new interpretation. If, however, any patent licensed hereunder shall be held in one Circuit invalid by a decision from which no appeal can be taken and which is not overruled, and shall be held in another Circuit valid by a decision which is not reversed or overruled, royalties shall thereafter be payable under said patent as to sales within or for use within the jurisdiction where said patent is held valid but not otherwise, unless and until the conflict of decisions is removed by controlling decision in one such Circuit or by a Court of superior jurisdiction. A holding of invalidity of certain claims shall not affect the royalty payments under a claim or claims which are valid thereover and are not declared invalid.

15. If, as a result of operating under any of the terms of license under this contract, either party hereto should infringe or be charged with infringement of a patent owned by a third person, from which infringement said party shall find it impossible or impractical to escape by a change in operations, the parties shall consult as to the best means of relieving the situation and shall assist each other in settling or defending the suit (without, however, being obligated to make any financial contribution), and if both Sylvania and Du Pont are infringing such patent, and either or both of them is sued because of such infringement, they will jointly assume the defense, jointly control the litigation, and share the cost thereof in proportion to the percentage of the alleged infringing business which is currently enjoyed by each of the parties.

16. The licenses granted and to be granted under this contract are not assignable nor may any sublicense be

granted, but they shall respectively pass to the legal successor or assignee of the entire business of either party, and shall be subject to all provisions of this contract.

17. Du Pont agrees that it will not give or grant to a third party any form of license under the aforesaid five patents in respect to the subject matter licensed to Sylvania in Paragraph 1, during the time Sylvania remains licensed thereunder, unless Sylvania shall first consent in writing to the terms of such license. Each party hereto agrees that it will not give or grant to any third party any form of license under any one of the future patents referred to in Paragraphs 2 and 3, in respect to the subject matter that the other party hereto is entitled to be licensed pursuant to the provisions of said Paragraphs 2 and 3, during or before the three (3) months' period referred to in Paragraph 5 within which a license must be acquired, or at any time while a license so acquired remains in force under the terms of this contract, unless the parties hereto shall first agree in writing to the terms of the license to be granted to said third party.

18. Each party hereto agrees that every article manufactured by it, embodying the invention or produced by the practice of the invention of a patent under which said party is licensed by the terms of this agreement shall be marked by a notice such as "Licensed under U. S. Patent _____" (as the case may be).

19. In case any controversy under this agreement shall arise between the parties hereto which they are unable to adjust between themselves, such controversy shall be settled in accordance with the provisions of the U. S. Arbitration Act in the following manner:

Either party may, by notice in writing served on the other, appoint one arbitrator and call upon the other

D 16

to appoint a second arbitrator within thirty (30) days after the receipt of such notice; and each party agrees that, upon receiving any such notice, it shall so appoint an arbitrator and immediately notify the other party thereof. The two arbitrators thus appointed shall, within thirty (30) days after the appointment of the one last appointed, jointly appoint a third arbitrator. The controversy shall be submitted to the three arbitrators in such manner as they shall direct and their decision, or the decision of a majority of them, rendered in writing shall be final, conclusive, and binding upon the parties. In the event that a second arbitrator shall not be appointed as above provided, or the two arbitrators first appointed shall fail to appoint a third, application may be made by either party to the Presiding Judge of the Federal District Court for the Southern District of New York to designate and appoint an arbitrator or arbitrators, as the case may require. Each party shall pay its own expenses in connection with the arbitration, but the compensation and expenses of the arbitrators shall be borne in such manner as may be specified in their decision in writing.

20. The granting of any license under any patent to either Du Pont or Sylvania under the provisions of this contract shall not be construed by implication to convey a license under any present or future patent domestic or foreign of either Du Pont or Sylvania not enumerated herein. Sylvania represents that as of the date of the signing of this contract it has no present existing U. S. patent relating to the manufacture of a sheet or film of moistureproof regenerated cellulose, and Du Pont represents that as of the date of the signing of this contract it has no present existing U.S. patent

relating to the manufacture of a sheet or film of moisture-proof regenerated cellulose except the patents listed in the premises of this agreement.

21. It is understood and agreed that the license granted to Sylvania in Paragraph 1 to utilize the disclosures in the said five patents in the manufacture of moisture-proof regenerated cellulose shall include the right to procure the components of and make up the lacquer or lacquers disclosed in Patent No. 1,876,696, and the apparatus parts disclosed in Patent No. 1,876,697, from third parties, but shall not include the right to procure from any third party except E. I. Du Pont de Nemours and Company and/or its subsidiaries any lacquer composition, article, product or apparatus directly patented by any claim of the aforesaid five patents. The grant of any license under Paragraphs 2 and 3 shall include the right to procure the components of the patented lacquer, article, product or apparatus from third parties, but shall not include the right to procure from any third party except E. I. Du Pont de Nemours and Company and/or its subsidiaries any lacquer, product, article or apparatus directly patented by the patent under which the license has been granted. Except as provided above in this paragraph, the grant of a license under this contract between the parties hereto, shall not operate or be construed as to give directly or by implication any license or other right to a third party to manufacture or assist or contribute in manufacture under any of the said five patents or future patents.

22. Sylvania and Du Pont each agree that they will not, directly or indirectly, assist others in infringing or contesting the validity of any of the patents under which a license or licenses are granted or have been granted pursuant

to the terms of this contract, and Sylvania hereby expressly acknowledges the validity of the present DuPont patents for the period and for the scope of its licensed operations thereunder.

23. It is agreed that the parties hereto will endeavor to protect by United States letters patent all inventions and improvements of a nature which would be subject to license under the provisions of this agreement and will not seek to protect them as trade secrets without the consent of the other party to this agreement, so that all patentable improvements of a nature subject to license hereunder under Paragraphs 2 and 3 shall eventually be known to and available for use by both parties upon the terms and conditions of this agreement. It is also agreed that in case an invention is acquired by either party of the type which, if patented, would be subject to license under Paragraphs 2 or 3 hereof, and if sheets or films of moistureproof regenerated cellulose embodying or made by the use of such invention are put upon the market in commercial quantities by the party owning said invention, the other party to this agreement shall have the right to demand and receive a disclosure of such invention and of all pending United States patent applications covering the same, as soon as six (6) months have elapsed since the commencement of such commercial sale. Thereafter the demanding party, if it elects to do so, shall have a license to use the invention covered by any allowed claims of said application or applications upon the same terms and conditions as a license for future patents under Paragraphs 2 and 3 hereof, except that any royalties payable shall be computed only upon the claims of such applications when and so long as they stand allowed and are not in interference.

24. It is agreed that if at any time during the life of this agreement an interference is declared by the United States Patent Office between the parties hereto upon one or more counts which, if patented, would be subject to license under Paragraphs 2 or 3 hereof, the parties will stipulate for and endeavor to obtain a suspension of further proceedings in the Patent Office upon said interference, will exchange within thirty (30) days after the declaration of interference (but not file) preliminary statements in the form required by the Patent Office Rules, will cause the patent attorneys for the respective parties to disclose to each other fully and fairly the evidence in support of said preliminary statements, and endeavor to reach an agreement regarding the disposition of said interference. If no such agreement is made within ninety (90) days after the declaration of such interference, the parties agree to submit the controversy to arbitrators in accordance with Paragraph 19 hereof. It is agreed that the decision of the arbitrators or of a majority of them rendered in writing shall be final, conclusive and binding upon the parties, and shall be carried into effect by a concession of priority signed by the party against whom the decision has been rendered and in favor of the other party, and filed in the United States Patent Office, and that the parties will then cooperate in disposing of said interference in harmony with said decision. It is agreed that the parties will use their best efforts to insure judgment in the Patent Office consistent with the agreement reached by the parties.

25. It is understood and agreed that the right to examine the special records of articles manufactured and/or sold, as provided in Paragraph 10, shall not include

any right or privilege to inspect the manufacturing plants or processes of the other party, or to acquire any confidential information respecting manufacturing plants or processes, or concerning patent applications or other confidential matters, except as provided in Paragraph 23 hereof and Paragraph 24 hereof.

26. In the event that either party hereto during the term of this agreement knowingly makes or commits any act of bankruptcy or insolvency or if either party is adjudicated a bankrupt, whether in voluntary or involuntary proceedings, under any bankruptcy or insolvency laws, or invokes the provisions of any bankruptcy or insolvency act to effect a composition with creditors or to obtain an extension of time to pay its debts, or makes an assignment for the benefit of creditors, or a receiver is appointed of the assets of either party and remains in charge for sixty (60) days, the other party hereto may at its option cancel this agreement and upon such cancellation all rights, licenses and obligations of the parties hereto, as arising hereunder, shall cease and terminate, and all royalties that have accrued prior to the date of such cancellation under the terms of this agreement shall become immediately due and payable.

27. Whenever notice is required in this agreement, it shall be sent postpaid registered mail, addressed to the last known address of the party entitled to receive the same.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be signed by their respective proper officers and their respective corporate seals to be hereunto affixed.

DU PONT CELLOPHANE COMPANY, INC.

By _____
President

(Corporate Seal)

Attest:

_____
Secretary

SYLVANIA INDUSTRIAL CORPORATION

Roger W. Wallace

By _____
President

(Corporate Seal)

Attest:

_____
Secretary

2487

Action 1216

STATE OF New York)
: ss:
COUNTY OF New York)

On this 26 day of April, 1933, before me personally came L. A. Yerkes, to me known who, being by me duly sworn, did depose and say that he resides in New York County of New York State of New York; that he is the President of Du Pont Celloshape Company, Inc., the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto by like order; and he acknowledged the said instrument to be the free act and deed of the said corporation

(Seal)

Notary Public

NOTARY PUBLIC
[illegible] No. 162
[illegible] No. 151 M 34
[illegible] No. 460
[illegible] No. 5 M 31
[illegible] March 30, 1934

STATE OF)
: ss:
COUNTY OF)

On this day of , 1933, before me personally came , to me known who, being by me duly sworn, did depose and say that he resides in County of State of ; that he is the President of Sylvania Industrial Corporation, the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto by like order; and he acknowledged the said instrument to be the free act and deed of the said corporation.

Notary Public

(Seal)

Exhibit A

[illegible]

([illegible])

7. That the method used in determining the relative moistureproofness of the material consisted in measuring the amount of moisture per unit area that a material will pass in a given unit of time, when it was exposed on one side to air saturated with moisture (100% relative humidity) and to air on the other side of practically zero moisture content, the entire test being conducted at a fixed temperature.

In carrying out the method a shallow glass dish was tipped bottom up in molten beeswax to a depth of one-half inch and, while the wax was still molten and adhering to the rim, the dish was placed in an inverted position on a sheet of the material to be tested and allowed to remain there for several minutes, during which time the wax solidified and caused tight adherence of the material to the top of the dish. The excess of the material was then trimmed off around the dish. The dish was then placed in an upright position and about one inch of the circumference of the material loosened from the rim of the dish by means of a knife blade or thumb nail. About 25 cc. of water at approximately 45° C. was introduced into the dish by means of a pipette inserted where the seal had been broken. After withdrawing the pipette the part of the material which had been broken away from the dish was resealed in place with a hot metal rod, thus giving an air and moisturetight joint between the material and the rim of the dish (see Figures 1 and 1a). The dish was then weighed on an analytical balance to the nearest milligram. The

weight and the time of weighing were recorded and the dish then placed on pads disposed on the lower shelves of an airtight oven (see Figures 2 and 2a). The air within the oven was kept in constant circulation by means of a fan and maintained dry by sulphuric acid contained in trays and disposed on the upper shelves of the oven. The temperature was thermostatically controlled and kept within plus or minus 0.5° C. of the desired temperature. During the test the oven was maintained at a temperature of 39.5° C. The duration of the test was approximately 24 hours, after which the covered dish was removed, brought to room temperature and again weighed to the nearest milligram. The time and weight were again recorded. The loss of weight in the covered dish taking place during its exposure in the oven represented the amount of moisture which passed through the material being tested during the period of the test. From the loss in weight, the time of exposure in the oven and the area of the material, the amount of moisture that passed through the material on the basis of grams of water vapor passed per square meter per 24 hours can be calculated. This figure was taken as the moistureproof value of the sheet being tested and is expressed as follows:

$$\text{Moistureproof value} = \frac{W \times 24 \times 10,000}{A \times T}$$

Where,

W = loss in weight of grams of the test dish

A = area of the material exposed over the dish expressed in square centimeters and

T = time of exposure of hours in the oven.

Thus, the moistureproof value is expressed as the amount of moisture in grams passing through one square meter of

surface per 24 hours at a temperature of 39.5° C. when the sheet is exposed to practically 100% relative humidity on one side and practically 0% relative humidity on the other side. From this it is apparent that the effectiveness of the material is inversely the moistureproof value, that is, the smaller the moistureproof value the more effective the material and conversely, the greater the moistureproof value the less effective the material.

This method has been found to give rather consistent results. The experimental error in the method depends chiefly on the moistureproofness of the material being tested. When a very moistureproof material is tested, loss in weight of the dish is small, and, of course, gives rise to somewhat larger errors than is the case when larger amounts of moisture are passed. It has been found that in cases where the moistureproof value is over 200, the experimental error in the test does not exceed 30%; between values of 40 and 200 the error does not exceed 60% and with values under 40 the error is not greater than 100%. These errors may seem somewhat large from the point of view of precise chemical work but it should be borne in mind that in all materials tested there were variations in the samples which were comparatively large. Furthermore, the scale of moistureproofness of the materials tested varied from 2 to 3 up to values of several thousand. It was not uncommon to find one material which was 5 to 10 or 20 times better than another material and where such large variation existed between the different materials, the actual error in the test became less important.

GOVT EXHIBIT NO. 2488
Civil Action 1216

1938

THIS AGREEMENT entered into this 12th day of July, 1938, by and between E. I. DU PONT DE NEMOURS AND COMPANY, a corporation organized and existing under the laws of the State of Delaware, and having its principal office and place of business in Wilmington, Delaware, hereinafter called "Du Pont", and SYLVANIA INDUSTRIAL CORPORATION, a corporation organized and existing under the laws of the State of Virginia, and having its principal office and place of business in New York City, State of New York, hereinafter called "Sylvania".

[illegible]:

WHEREAS, on April 26, 1933, Du Pont Cellophane Company, Inc., and Sylvania Industrial Corporation, for the purpose of effecting a settlement of certain patent infringement litigation, entered into an agreement providing for the granting of licenses under certain United States Letters Patent involved in said litigation; and

WHEREAS Du Pont has assumed all of the obligations and benefits of the Du Pont Cellophane Company, Inc., under said agreement dated April 26, 1933, and is now the owner of the entire right, title and interest in and to the United States Letters Patent mentioned in said agreement of April 26, 1933, viz., United States Letters Patent No. 1,737,107, issued on November 26, 1929, and United States Letters Patent numbered, respectively, 1,826,696, 1,826,697, 1,826,698 and 1,826,699, all issued on October 6, 1931; and

WHEREAS the parties hereto desire to amend said agreement of April 26, 1933;

NOW, THEREFORE, in consideration of the premises and the mutual promises, covenants and undertakings hereinafter set forth, it is hereby agreed between the parties hereto that said agreement of April 26, 1933, shall be and hereby is amended, as follows:

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Paragraphs 1, 2 and 3 of said agreement are hereby amended to provide as follows:

"1. Du Pont, first reserving to itself, its successors, assigns, and subsidiaries the unrestricted right to manufacture, use, import, and sell, within the United States of America, and its territories and possessions, present and future, under each and all of the United States Letters Patent hereinbefore specifically mentioned, any and all inventions described and/or claimed in each and all of said Letters Patent, grants to Sylvania exclusive license, except as above provided, under each and all of said patents, to manufacture, import, and sell, within the United States of America, and its territories and possessions, present and future, an article of manufacture comprising a sheet or film of regenerated cellulose combined with a moistureproofing composition and in said manufacture to utilize the inventions disclosed and/or claimed in any or all of the aforesaid Du Pont patents, but not otherwise. The term 'regenerated cellulose', as used herein, shall include any cellulose materials that are or can be obtained by precipitation, recovery or coagulations from an aqueous or an alkali-aqueous solution.

"2. Furthermore, Du Pont, first reserving to itself, its successors, assigns and subsidiaries, the unrestricted right to manufacture, use, import, and sell, within the United States of America, its territories and possessions, present and future, agrees to grant to Sylvania, at the latter's election, exclusive license or licenses (except as above provided) under any future United States letters patent or patents granted to or acquired by Du Pont prior to October 6, 1948, where the inventions claimed therein are concerned with the manufacture of a sheet or film of regenerated cellulose combined with a moistureproofing composition and fall within the scope of one or more of the patents hereinbefore specifically mentioned, said exclusive license to be of the same scope as provided in Paragraph 1.

"3. Likewise, Sylvania, first reserving to itself, its successors, assigns and subsidiaries, the unrestricted right to manufacture, use, import, and sell, within the United States of America, its territories and possessions, present and future, agrees to grant to Du Pont, at the latter's election, exclusive license or licenses (except as above provided) under any future United States letters patent or patents granted to or acquired by Sylvania prior to October 6, 1948, where the inventions claimed therein are concerned with the manufacture of a sheet or film of regenerated cellulose combined with a moistureproofing composition and fall within the scope of one or more of the patents hereinbefore specifically mentioned, said exclusive license to be of the same scope as provided in Paragraph 1."

The concluding portion of Paragraph 13 of said agreement, beginning with the words "Any and all sums recovered from infringers on patents licensed hereunder etc., and ending with the words "after the final termination (save for accounting) of such suit", is hereby amended to provide as follows:

"Any and all sums recovered from infringers of the patents licensed hereunder, whether by judgment, decree, settlement, or otherwise, shall belong to the party who owns or controls the patent infringed, except that in cases in which both the Licensor and Licensee have been damaged by the infringement, any balance of the sum or sums recovered from the infringer, after deducting all of the expenses incurred by the party instituting such suit, shall be apportioned between the Licensor and Licensee, upon the basis of the damages sustained by each as the result of the infringement. If the Licensor and Licensee are unable to agree between themselves as to the amount of the damages sustained by each, then such amount shall be determined by arbitration, in accordance with the provisions of Paragraph 19 of this agreement. Whenever the Licensor has brought suit and is prosecuting with diligence one suit against an infringer of a patent licensed hereunder by said Licensor, the Licensor shall have no duty to bring any other concurrent suit on such patent against infringers, and the Licensor shall be relieved as to such patent of any other obligation under provisions (a) and (b), hereinbefore recited in this paragraph, and the Licensee shall not have as to such patent any of the options (1), (2), or (3), hereinbefore recited in this paragraph, during such prosecution and for a period of three (3) months after the final termination (save for accounting) of such suit."

Paragraphs 15 and 17 of said agreement are hereby canceled and terminated in their entirety.

Any and all existing license agreements heretofore issued by the respective parties, under the provisions of Paragraphs 2 and 3 of said agreement, shall hereafter, upon the execution of this agreement by both parties hereto, be construed and interpreted in accordance with the provisions of this agreement.

Except as specifically amended herein, it is understood and agreed between the parties hereto that each and all of the other provisions of said agreement of April 28, 1933, shall remain in full force, virtue and effect.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed, in duplicate, by their respective proper officers, duly authorized, and their respective corporate seals to be hereunto affixed.

Attest:

Secretary.

E. I. DU PONT DE NEMOURS AND COMPANY

By

Ass't. General Manager
RAYON DEPARTMENT.

Attest:

Secretary.

SYLVANIA INDUSTRIAL CORPORATION

By

Vice President.

STATE OF DELAWARE |
| ss:
COUNTY OF NEW CASTLE |

On this - 21st - day of ~~June~~ July, 1938, before me personally came B. M. May, to me known, who being by me duly sworn, did depose and say that he resides in Wilmington, County of New Castle, State of Delaware; that he is ~~Vice President~~ Asst. Staff Manager, Rayon Department of E. I. du Pont de Nemours and Company, the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation and that he signed his name thereto by like order; and he acknowledged the said instrument to be the free act and deed of the said corporation.

Edmund [illegible]
Notary Public.

STATE OF NEW YORK |
| ss:
COUNTY OF NEW YORK |

On this 12th day of ~~June~~ July 1938, before me personally came H. H. Riplogle, to me known, who being by me duly sworn, did depose and say that he resides in Scarsdale, New York; that he is the Vice President of Sylvania Industrial Corporation, the corporation described in and which executed the above instrument; that he knows the seal of the said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto by like order; and he acknowledged the said instrument to be the free act and deed of the said corporation.

Margaret A. Fellows
Notary Public.

NOTARY PUBLIC
NEW YORK [illegible] NO. [illegible]
COMMISSION [illegible] MARCH 30, 1939

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cc: Dr. E. B. Benger

Wilmington, Delaware
January 26, 1942

Dr. G. M. Karns, Director (3)
Cellophane Research Section
Rayon Technical Division
WILMINGTON

1. F. M. PRALL
2. W. W. SMITH

LAMINATED PRODUCTS

Here are my notes on the discussion we had with Messrs. Hatt and Hines and Dr. Benger for part of the time. I leave to you whether there is any need of sending a copy to Mr. Hines.

Mr. Hines said that the Government may have great need of moistureproof laminated products. One of these might be two sheets of cellophane laminated to each other by means of a moistureproofing adhesive with or without final moistureproof coating of the resulting product. Another of these might be a sheet of cellophane laminated to some other material such as paper, cloth, chipboard, wood, etc.

The problem Mr. Hines posed was: What is the best procedure to give the Government these laminated products necessary to win the war and, having decided on that, what can be done to preserve du Pont's position in a post-war economy?

There followed a technical discussion in which it was said that we could make all of the laminated products or we could make some of them and, with reference to the others, we could make a sheet suitable for lamination and let the customer carry out the actual lamination. It was further said that we could sell film and moistureproofing lacquers to customers and let them carry out the operation; and finally, that we could give to customers the information on moistureproofing lacquers and they could buy their raw materials, compound the lacquers and use them. In view of

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Films Laminat...

the fact that operation by our conventional system involves solvents and solvent-recovery systems, there was also a brief discussion as to the possibility of producing the laminated structures by using as the vehicle for the moistureproofing adhesive a liquid monomer which changed to a solid polymer with time and temperature or by using a melt system which changed to a solid by coating.

Mr. Hines expressed the feeling that if customers are not currently equipped for such laminating jobs, the Government would be provided with laminated products much faster if we bought the necessary equipment and undertook the entire operation. He made the further point that, by such a procedure, uniformity of quality would be insured. He pointed out that if a number of customers were already provided with the laminating equipment, the Government would get its requirements filled quicker by using those facilities than by our equipping ourselves. He pointed out that with a number of people making laminated products, the difficulty of uniformity of quality is greatly aggravated. He indicated that a solution for this might be for us to take over those plants of customers or those fractions of plants involved in the operation. Mr. Hatt commented that he believes the project is too big for any one company to undertake, particularly if cellophane gets into the field now handled by tin cans, and the tremendous size of the operation may require participation by numbers of people.

About this time, a sharp distinction was made between the laminating of a moistureproof film to chipboard and other laminations. There are apparently laminations where the laminating company does not add moistureproof protection in the operation but merely conserves that which was present in the film being laminated. The laminating of a heat-sealed moistureproof cellophane chipboard is such an example and could be better done in certain customers' plants.

Having decided for the moment that there is a possibility that the Government's interests will be best served by our providing customers with film and with moistureproofing adhesives or the compositions therefor, we discussed the post-war situation. It was said that the customer would, at the end of the war, be possessed of a

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great deal of information with respect to the preparation of moistureproofing compositions and the technique of moistureproofing film with them and would be disposed to continue in such a business on a peace-time basis to the detriment of the Company's interests. The question was posed as to what, if anything, could be done in this regard. I said that, subject to the Legal Department approval, which I think would be granted, and, subject to the necessary permission from Sylvania, which I think could not be refused, it would be possible to enter into an agreement with the customer,

1. Whereby we provided him with all of the information we possessed pertinent to the necessities of the military operation so that, for example, he could buy raw materials, compound moistureproofing adhesives and produce laminated structures involving them, including, if necessary, the final coating of the laminated structure with a second moistureproofing composition;

2. Whereby we grant a license under any patents we own or later own to permit him to carry out the operations necessary to the Government's war effort;

3. Whereby it is understood that no license, specific or implied, is granted under these patents for the use of this information for any peace-time operation; and

4. Whereby (if legally permissible) the customer agrees that he will hold the information as confident and will not use it, even if it is not covered by a patent, for production which competes with our post-war activities.

The conference ended with the request to you to collect all of the technical information which will indicate the most practical way for us or our customers to fulfill the Government requirements at all promptness and with the request to me to find out what kind of an agreement with the customer is legally possible in regard to the post-war situation.

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Dr. O. M. Karns

January 26, 1942

In connection with quite another matter later in the day, I learned that the Explosives Department has made its patents and know-how available to others for military production but not for peace-time production, with the result that I think we can develop with the Legal Department a situation which will permit the Company to expedite the war effort without being unduly exposed in the post-war period.

PATENT SERVICE

P.M. Prall
Director

PMP:KK
t-f

P.S. Since dictating this letter, I have talked with Mr. Daley and he agrees as a general principle that it is legally possible to enter into an agreement with these other people whereby we provide them with all of the necessary information that we possess to expedite the war effort with a license under any necessary patents and whereby we state that the grant is made for the duration of the war and for materials sold to the Government (or authorized by the Government by some suitable definition) and wherein we say that at the end of this period, the license under the patent stops and the right to use the technical information stops. Mr. Daley and I agreed that we would go no further until we have a specific case which will discuss a certain company, whether or not it is an independent concern or an agent, and which describes a particular product. We both agree, of course, that it will be necessary to get a license from Sylvania and we anticipate no trouble in that direction.

P.M.P.

3258 3416

GOVT EXHIBIT NO. 2515
Civil Action 1216

C O P Y

This license agreement made this 19th day of September, 1939, by and between E. I. DU PONT DE NEMOURS AND COMPANY, a corporation organized and existing under the laws of the State of Delaware, and having its principal place of business at Wilmington, Delaware (hereinafter called DU PONT), party of the first part, and SYLVANIA INDUSTRIAL CORPORATION, a corporation organized and existing under the laws of the State of Virginia, having its principal place of business in New York, New York (hereinafter called SYLVANIA), party of the second part;

W I T N E S S E T H :

WHEREAS, by the terms of an agreement dated April 26, 1933, between SYLVANIA and The Du Pont Cellophane Company, Inc., a corporation organized and existing under the laws of the State of Delaware, having its principal place of business in New York, New York, the Du Pont Cellophane Company, Inc. agreed to grant to SYLVANIA licenses under the terms and conditions therein provided under certain patents, if and when acquired by the Du Pont Cellophane Company, Inc.; and

WHEREAS, DU PONT has assumed the obligations and benefits of the Du Pont Cellophane Company, Inc. under said agreement dated April 26, 1933, as amended by the agreement dated July 12, 1938, and whereas DU PONT is the owner of the entire right, title and interest in and to United States Letters Patent No. 1,737,187, issued November 26, 1929, in the names of William Hale Charch and Karl Edwin Prindle, for "Moistureproof Material"; and

AT-6761

WHEREAS, DU PONT and SYLVANIA desire to modify said agreement dated April 26, 1933, as amended by the agreement dated July 12, 1938, by granting to DU PONT the right to issue a restrictive license under said Church and Prindle United States Letters Patent No. 1,737,187, a copy of which proposed license agreement between DU PONT and the Marathon Paper Mills Company, of Rothschild, Wisconsin, is attached hereto as "Appendix A";

NOW, THEREFORE, in consideration of the premises and conditioned upon the true and faithful performance of the undertakings and covenants herein set forth to be kept and performed, it is hereby agreed as follows:

1. DU PONT and SYLVANIA agree to modify said agreement dated April 26, 1933, as amended by the agreement dated July 12, 1938, to the extent that DU PONT shall be free to issue said license to MARATHON, described in Appendix "A", attached hereto.

2. It is agreed that the royalty obtained from MARATHON shall be divided between DU PONT and SYLVANIA in the ratio of two thirds to DU PONT, and one third to SYLVANIA. The royalty payable to SYLVANIA under this article shall be computed quarterly as of the first day of January, April, July and October for the preceding quarter, and a check shall be sent by DU PONT to SYLVANIA covering the royalties payable to SYLVANIA, on a date not later than sixty (60) days after the end of the quarter to which the report relates.

3. DU PONT agrees promptly to report to SYLVANIA the amount of each royalty payment made by Marathon to DU PONT, and shall permit SYLVANIA'S authorized agent or officer at any time during business hours to examine DU PONT'S books and records so far as the same disclose any information relating to Marathon's payment of royalties.

4. DU PONT agrees not to waive any provision of the said Marathon license or modify the same without the previous written consent of SYLVANIA and agrees to enforce all the obligations and limitations of said license.

5. DU PONT agrees, with or before the execution and delivery of said Marathon license, to notify Marathon in writing as follows:

> "Before concluding your license agreement under Charch and Prindle Patent No. 1,737,187, DU PONT wishes it understood that DU PONT'S right to make said agreement or grant any license under that patent depends on the consent of another licensee, namely SYLVANIA INDUSTRIAL CORPORATION, and that SYLVANIA INDUSTRIAL CORPORATION has granted consent to the agreement as now drawn on the understanding that no waiver of the provisions of said agreement or other modification of the agreement shall be made unless the written consent of SYLVANIA is first obtained."

6. Except for the modification set forth in Article 1 above, said agreement dated April 26, 1933, as amended by the agreement dated July 12, 1938, shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed by their proper signatories, duly authorized thereto, and have caused their corporate seals to be hereunto affixed, as of the day and year first above written.

E. I. DU PONT DE NEMOURS AND COMPANY

(S) L.R.O.
(S) J.E.H.

By (S) B. M. May
A.S.S.T. General Manager
RAYON DEPARTMENT.

Attest:

(S) W. F. Raskob
Secretary.

Form Approved
Legal Department
(S) H.C.Haskell
Ass't. Director

SYLVANIA INDUSTRIAL CORPORATION

By (S) H. H. REPLOGLE
Vice President.

Attest:

Secretary.

COPY

APPENDIX "A"

AGREEMENT made this 19th day of September 1939, by and between E. I. DU PONT DE NEMOURS AND COMPANY, a corporation organized and existing under the laws of the State of Delaware, and having its principal place of business at Wilmington, Delaware (hereinafter called DU PONT), and MARATHON PAPER MILLS COMPANY, a corporation organized and existing under the laws of the State of Wisconsin, and having its principal place of business at Rothschild, Wisconsin (hereinafter called MARATHON);

W I T N E S S E T H:

WHEREAS, DU PONT is the owner of the entire right, title and interest in and to United States Letters Patent No. 1,737,187, issued November 26, 1929, in the names of William Hale Charch and Karl Edwin Prindle, for "Moistureproof Material"; and

WHEREAS, MARATHON desires under said Charch et al. United States Letters Patent No. 1,737,187 a non-exclusive, non-assignable license of the limited character hereinafter set forth;

NOW, THEREFORE, for and in consideration of the sum of One Dollar ($1.00) paid by MARATHON to DU PONT, the receipt whereof is hereby acknowledged, and for and in consideration of the mutual promises, covenants, and undertakings herein set forth to be kept and performed, it is hereby mutually agreed as follows:

A
6761

1. It is understood and agreed that MARATHON desires to coat regenerated cellulose film, for use in the wrapping of cheese, throughout continental United States of America, with a rubber-wax composition having a viscosity of at least eight thousand (8,000) seconds (Scott viscosimeter at 90° C.), the character of and manufacture of which coating are described and claimed in United States Letters Patent No. 2,054,113, issued September 15, 1936 in the names of Allen Abrams and Charley L. Wagner, for "Coated Sheet Material".

It is understood and agreed that the film concerning which Marathon desires a license under said Charch et al. United States Letters Patent No. 1,737,187 is non-transparent in character and corresponds to the sample of film attached hereto and designated as "Exhibit A".

2. DU PONT hereby grants to MARATHON a non-exclusive, non-assignable license, limited to continental United States of America, under said Charch et al. United States Letters Patent No. 1,737,187, to coat regenerated cellulose film made by the viscose process with the rubber-wax composition described in Article 1 for the purpose of producing only non-transparent film corresponding to the film designated as "Exhibit A", said license being limited to the right to coat said film and to sell said coated film for the packaging of cheese, and the license therefore grants to MARATHON the right to sublicense its customers

to use said film licensed herein only for the packaging of cheese, within continental United States of America. The license granted in this article shall extend for the remaining life of said Charch et al. United States Letters Patent No. 1,737,187. The license granted to MARATHON in this agreement does not include the granting of any right or license to MARATHON or to MARATHON'S customers to make, within continental United States of America, the film covered by the license granted in this agreement for sale either as film or in the form of a wrapper on a cheese package, outside of continental United States of America.

This license shall not include the right to license others, except as to the sublicensing arrangement in customers to use, as stated above in this article.

The license grant contained in this article shall not, either directly or indirectly, include a license under any patent other than said Charch et al. United States Letters Patent No. 1,737,187, now or hereafter owned by DU PONT.

3. MARATHON, during the period of this license, and as far as the scope of this license is concerned, acknowledges the above United States Letters Patent No. 1,737,187 to be good and valid and agrees not to directly or indirectly contest the validity thereof, nor shall MARATHON assist others in any infringing operation or suit brought by DU PONT for infringement of said patent. As far

as is reasonably possible, MARATHON shall assist DU PONT, to such extent as requested but at DU PONT'S expense, in maintaining the validity of said United States Letters Patent No. 1,737,187, as long as MARATHON shall be licensed hereunder.

4. MARATHON agrees to pay DU PONT, as royalty, two cents (2¢) per pound for every pound of regenerated cellulose film used in the manufacture of the film produced by MARATHON under the license granted herein.

The royalties herein provided for shall be computed quarterly as of the first day of January, April, July and October, for the preceding quarter, and the number of pounds of licensed film manufactured during each quarter shall each be reported to DU PONT accompanied by check for the royalties due thereon not later than thirty (30) days after the end of the quarter to which the report relates.

MARATHON shall keep separate records of the film manufactured under this license, in sufficient detail to enable MARATHON to determine the royalties payable hereunder, and shall permit its books and records to be examined by DU PONT'S authorized agent or officer from time to time during business hours to the extent required to verify the records herein provided for.

5. DU PONT reserves the right to cancel this license at its option upon thirty (30) days' written notice to MARATHON in the event that any of the stipulations or provisions of this agreement are not kept or performed by MARATHON.

MARATHON reserves the right to cancel this license at its option upon thirty (30) days' written notice to DU PONT in the event unlicensed competition by the sale of a product infringing said Charch et al. United States Letters Patent No. 1,737,187 is commenced and continued to an extent and in a manner which adversely and substantially affects the sale by MARATHON of the product licensed to MARATHON under Article 2 hereof and which has existed for a period of three (3) months and DU PONT has not, after due notice by MARATHON herein, either sued the infringer or succeeded in abating the infringement.

In the event that the claims of the aforesaid United States Letters Patent No. 1,737,187 under which MARATHON is operating and paying royalties are declared invalid by a United States Court in a final decree, MARATHON shall have the right at any time following said decree to cancel this agreement; provided, however, that such right of cancellation shall not exist as long as MARATHON is operating under a claim of said United States Letters Patent No. 1,737,187 not declared invalid.

Any cancellation of the contract in accordance with the foregoing provisions shall not relieve MARATHON

from the payment of any royalties due up to the date of cancellation.

6. During the life of the license granted in this agreement, DU PONT agrees that it will not grant to any person, firm or corporation, other than MARATHON, a license under said Charch et al. United States Letters Patent No. 1,737,187, for the making and selling, for use in the wrapping of cheese, throughout continental United States of America, regenerated cellulose film coated with a rubber-wax composition, upon terms more favorable than those granted to Marathon, in this agreement, without permitting MARATHON, upon written request sent to DU PONT, to avail itself of such more favorable terms in lieu of the terms of the present agreement, provided, however, that this paragraph shall not be construed as compelling DU PONT to make such terms available to MARATHON outside of the field of making and selling, for use in the wrapping of cheese, throughout continental United States of America, regenerated cellulose film coated with a rubber-wax composition.

It is agreed that this paragraph does not apply with respect to licenses granted by DU PONT to others prior to the date of this agreement, and in effect on the date of this agreement.

7. DU PONT shall be under no obligation to institute a suit or prosecute infringers under said Charch et al United States Letters Patent No. 1,737,187, nor shall DU PONT be in any way responsible or liable to MARATHON for

failure to prosecute infringers. If DU PONT elects to prosecute any infringer, the conduct of such suit shall be entirely directed by DU PONT, and any recoveries therein shall belong exclusively to DU PONT.

8. MARATHON agrees that, in the exercise of the license granted in this agreement, it will faithfully observe the provisions of the United States patent statutes relating to the marking of patented articles.

9. This contract shall inure to the benefit of the parties hereto, and the successors and assigns of the entire business relating to the subject matter of the patent licensed herein, but shall not otherwise be assigned. Any subsidiary of either party hereto may at any time elect to accept a license hereunder on the same terms and conditions expressed herein, and on so electing such subsidiary shall thereafter be obligated to pay the royalties due and abide by the terms of the license. For the purpose of this section, a subsidiary of either party hereto is defined as a company in which said party owns more than fifty per cent (50%) of the subsidiary stock which is entitled to vote for directors.

10. This written license contract embodies all the understandings and agreements between the parties concerning the license herein granted under Charch et al. United States Letters Patent No. 1,737,187, there being no other previous or contemporaneous understandings or agree-

ments, oral or written, between the present parties on the foregoing subject.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be signed in duplicate by their respective proper officers and their respective corporate seals to be hereunto affixed.

E. I. DU PONT DE NEMOURS AND COMPANY

(S) L.R.G.
(S) J.E.H.

By (S) B. M. May
Asst General Manager,
RAYON DEPARTMENT.

Attest:

(S) W. F. Askell
Secretary.

Form Approved
Legal Department
(s) H.C.Haskell
Ass't. Director

MARATHON PAPER MILLS COMPANY

By _____
President.

Attest:

_____
Secretary.

E. I. DU PONT DE NEMOURS & COMPANY GOVT EXHIBIT NO. Y530
Civil Action 1216

RAYON DEPARTMENT

Wilmington, Delaware
April 1, 1942

TO: COMMITTEE ON PATENTS

FROM: RAYON DEPARTMENT

LICENSE TO SYLVANIA INDUSTRIAL CORPORATION
UNDER SNYDER U S PATENT 2,087,008 EXPIRING
JULY 13, ~~1937~~ 1954.

The Snyder patent relates to the use of ethylene glycol as a softener or plasticizer for cellulosic films bearing a lacquer coating, preferably moistureproof. Ethylene glycol is used partially or wholly displacing glycerol in a part of our moistureproof film, particularly where improved low temperature durability is desired. It is not used in non-moistureproof film because of its volatility and resultant evaporation from the film.

Although the use is related and in practice limited to the manufacture of moistureproof film, it is not a component of the moistureproof coating and hence falls outside the main Du Pont - Sylvania moistureproof agreement. Sylvania is practicing the invention and desires a license. Since (1) the strength of the patent is not great (2) the patent is closely related to the manufacture of moistureproof film and (3) a license is an added inducement to Sylvania to exchange licenses involving patents applicable to "Cel-O-Seal" products, it was decided that the patent should be licensed to Sylvania at terms substantially those which would have applied had the patent been included in the main Sylvania agreement. It is understood between the parties that this action does not constitute a precedent.

In accordance with this decision the attached agreement provides for non-exclusive, non-assignable license to Sylvania under the Snyder patent at a royalty of 2% of the net selling price of the products manufactured and sold under the patent. It is agreed however, that this royalty will be waived for all products on which a royalty is paid under the main agreement i.e., all moistureproof film sold by Sylvania domestically. The usual provision providing for patent marking, most favored licensee, etc. are included. The agreement was prepared by C. F. Daley of the Legal Department and bears Legal Department approval.

Authority is requested to execute this agreement in substantially the form submitted.

J. E. Datt, Manager
CELLOPHANE DIVISION

Approved:
L. A. Yerkes
GENERAL MANAGER
RAYON DEPARTMENT

...TTEE

C-8003-E

This license agreement made this day of , 1942, by and between E. I. DU PONT DE NEMOURS AND COMPANY, a corporation organized and existing under the laws of the State of Delaware, and having its principal place of business at Wilmington, Delaware (hereinafter called DU PONT), party of the first part, and SYLVANIA INDUSTRIAL CORPORATION, a corporation organized and existing under the laws of the State of Virginia, having its principal place of business in New York, New York, (hereinafter called SYLVANIA), party of the second part;

W I T N E S S E T H :

WHEREAS, DU PONT is the owner of Snyder United States Letters Patent No. 2,087,008, issued July 13, 1937, for "Article of Manufacture and Process of Preparing Same"; and

WHEREAS, SYLVANIA desires to obtain a license under said Snyder United States Letters Patent No. 2,087,008, to practice the inventions and to manufacture, use and/or sell the products covered by said Snyder United States Letters Patent No. 2,087,008, throughout the United States of America, its territories and dependencies;

NOW, THEREFORE, in consideration of the premises and conditioned upon the true and faithful performance of the undertakings and covenants herein set forth to be kept and performed, it is hereby agreed as follows:

1. DU PONT hereby grants to SYLVANIA a non-exclusive license under said Snyder Letters Patent No. 2,087,008 and reissues and extensions thereof, throughout the United States of America, its territories and dependencies, to practice the inventions described and claimed in said Snyder United States Letters Patent No. 2,087,008 and reissues and extensions thereof, and to make, use and/or sell the products described and claimed in said Snyder United States Letters Patent No. 2,087,008 and reissues and extensions thereof.

2.(a) SYLVANIA agrees to pay to DU PONT a royalty of 2% of the net selling price of the products and articles manufactured and sold under the license granted in Article 1 under said Snyder United States Letters Patent No. 2,087,008 and reissues and extensions thereof.

(b) It is agreed, however, that as to that quantity of products or articles manufactured and sold in accordance with the license granted in Article 1 for which SYLVANIA is already obligated to pay royalty to DU PONT under the agreement dated April 26, 1933, between SYLVANIA and the DU PONT CELLOPHANE CO., INC., the obligations and benefits of which agreement have been assumed by DU PONT and which agreement has been amended by date of April 12, 1938, SYLVANIA shall pay no royalty under this agreement, but royalty shall otherwise be payable in accordance with Paragraph (a) of this Article.

(c) Royalties are due and payable in quarterly installments thirty (30) days after the end of each quarter. The quarters shall be deemed to end March 30, June 30, September 30, and December 30 of each year.

EXECUTIVE COMMITT C-8003-F

(d) SYLVANIA shall keep a separate record of the products or articles manufactured and sold under the license granted in Article 1 under said Snyder United States Letters Patent No. 2,087,008 and reissues and extensions thereof, in sufficient detail to enable royalties payable hereunder to be determined, and shall permit its books and records to be examined by DU PONT'S authorized agent or officer from time to time to the extent required to verify the records herein provided for. SYLVANIA shall submit to DU PONT a true and accurate statement of said accounting for each quarter during the period within which said royalties shall be due and payable.

3. The license granted under this agreement, unless terminated by breach of covenant or condition, shall run for the remaining term of said Snyder United States Letters Patent No. 2,087,008 and reissues and extensions thereof.

4. SYLVANIA agrees that it will mark each individual package of goods made in accordance with said Snyder United States Letters Patent No. 2,087,008 and reissues and extensions thereof "Licensed under U.S. Patent No 2,087,008", or by any other appropriate notice agreed to by DU PONT.

5. No right or license is granted to SYLVANIA by virtue of this agreement under any patent except said Snyder United States Letters Patent No. 2,087,008 and reissues and extensions thereof.

6. In the event that DU PONT shall grant to another a license of the character and scope granted in this agreement to SYLVANIA, under terms more favorable than those herein accorded SYLVANIA, SYLVANIA shall be notified by DU PONT within sixty (60) days and shall have the privilege, upon written notice given to DU PONT, of substituting the essential terms of such other license in place of the essential terms of the license herein granted to SYLVANIA.

7. This agreement and license shall be binding upon and inure to the benefit of the successors in interest of the parties hereto but shall not otherwise be assignable.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be signed by their respective proper officers and their respective corporate seals to be hereunto affixed as of the day and year first above written.

Form Approved
Legal Department
W. C. Haskell, Dir.

E. I. DU PONT DE NEMOURS AND CO.

By_____

Attest:

_____

SYLVANIA INDUSTRIAL CORPORATION

By_____

Attest:

_____

GOV'T EXHIBIT NO. 2639
Civil Action 1216

DU PONT CELLOPHANE COMPANY, INC.

Manufacturers of Cellulose Film

350 FIFTH AVENUE — NEW YORK, N.Y.

GENERAL MANAGER'S OFFICE

November 20, 1935.

[redacted]

L. A. Y.

MR. B. M. MAY

SYLVANIA PERCENT OF MOISTUREPROOF SALES

Dr. Wallach advised me the other day that on his return, he found on checking up on the recent reports to us, a new man in their Accounting Department in tabulating these figures for the last two quarters had not used the correct figures as to tonnage. The Doctor said, however, very definitely that the dollar figure which had been used was the correct one, even for the increased tonnage, and that he would advise me shortly what the exact figures were.

I now have from him an advice today that his tonnage figure of 1,830,327 pounds reported for the second quarter ending June 30th was incorrect and that that figure should have been 1,860,158 or an increase of approximately 30,000 pounds over the previous figure.

Likewise, he advised the third quarter figures should have been 2,105,086 pounds instead of 1,995,739 as reported - or in other words, an increase of approximately 110,000 pounds.

This change reduces his average price received in the second quarter from $.482 per pound to $.474 and increases his percentage of the total volume from 19.4% to 19.6% in that quarter.

Likewise, in the third quarter, it reduces his average price received from $.489 to $.464 per pound and increases his percentage from 20.5% to 21.4%.

Also, this brings his total reported sales to date to 5,226,739 pounds as against Cellophane domestic sales of 22,040,623 pounds and makes his nine months to date percentage of the total volume 19.1%.

These figures in turn compare with the nine months' sales in 1934 on the part of Sylvania of 3,984,517 pounds against 19,431,116 pounds for ourselves which shows Sylvania percentage to be 17% for that period as against the current

"CELLOPHANE" IS THE REGISTERED TRADE MARK OF THE DU PONT CELLOPHANE COMPANY, INC.

AT-13553

DU PONT CELLOPHANE COMPANY, INC.

Manufacturers of Cellulose Film

350 FIFTH AVENUE — NEW YORK, N.Y.

GENERAL MANAGER'S OFFICE

figure of 19.1%.

Therefore, Sylvania's increase in tonnage for the 9 months' period is 1,200,000 pounds or at the rate of 20% whereas Du Pont increase is 2,600,000 or at the rate of 14%.

The Doctor was interested in checking up on these percentages the other day, inasmuch as the last quarter - which figured at the rate of 21.4% for the quarter - is getting rather close to his maximum permitted percent for the calendar year 1935 (which is 22%) and in discussing this he remarked it did not seem advisable to provide for further production when there was no possibility of selling it profitably. I am not certain in my own mind as to just whether he meant to convey he was giving some consideration to increased production or whether he just passed that out as a passing comment.

We are correcting our records in accordance with his revised advices, and in correcting your figures of average price received by quarters you will note the average price received for the third quarter this year shows Sylvania to be within $.005 per pound of our own total figures including cigarettes. This is the closest he has come to our average figures in price received since these statements were filed.

E. Hatt

J. E. HATT

GENERAL MANAGER.

GOVT. EXH. S.T. NO. 2727
Civil Action 1216

AGREEMENT made this first day of January, 1940, by and between E. I. DU PONT DE NEMOURS AND COMPANY, a corporation organized and existing under the laws of the State of Delaware and having its principal place of business at Wilmington, Delaware (hereinafter called DU PONT), and SYLVANIA INDUSTRIAL CORPORATION, a corporation organized and existing under the laws of the State of Virginia and having its principal place of business in New York, New York (hereinafter called SYLVANIA);

W I T N E S S E T H :

WHEREAS, there exists an agreement dated April 26, 1933 between SYLVANIA and The Du Pont Cellophane Company, Inc., a corporation of Delaware (concerning which DU PONT has assumed the obligations and benefits of the said Du Pont Cellophane Company, Inc.) as amended by the agreements dated July 1, 1936 and September 19, 1939, under which SYLVANIA and DU PONT have issued several licenses to each other, under individual United States patents;

NOW, THEREFORE, it is agreed that said agreements dated April 26, 1933, July 1, 1936 and September 19, 1939 and all said licenses issued pursuant thereto are terminated as of the date first above written.

IN WITNESS WHEREOF the parties hereto have caused this instrument to be signed in duplicate by their respective proper officers and their respective corporate seals to be hereunto affixed.

Attest: _____ E. I. DU PONT DE NEMOURS AND COMPANY
Asst. Secretary By _____ L. D. Gerdes

Attest: _____ SYLVANIA INDUSTRIAL CORPORATION
Secretary By _____ F. H. Reichel
President

Sept-90

29-1c

GOVT EXHIBIT NO 2741
Civil Action 1216

DU PONT
ESTABLISHED 1802

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED

RAYON DEPARTMENT
TECHNICAL DIVISION

Buffalo, New York
May 1, 1944

CONFIDENTIAL

Dr. C. M. Kaine, Director
Cellophane Research
Technical Division
Rayon Department
WILMINGTON

SUBJECT: SYLVANIA PATENTS

REFERENCES: Letter, J. C. Siegmann to F. M. Prail, June 9, 1943
Letter, F. M. Prail to C. M. Kaine, June 14, 1943
Letter, F. M. Prail to L. L. Ryden, December 27, 1943

As discussed in the reference correspondence, the Sylvania agreement expires in October 1944. At that time, licenses will be cancelled on all patents under the scope of the agreement which are not in commercial use. It is necessary, therefore, that these patents be given careful and periodic scrutiny.

We have re-examined the following U.S. patents which are now licensed to us under the Sylvania agreement:

U.S. patent No. 1,983,183

A coating composition containing an aromatic ketone acid as a plasticizer.

U.S. patent No. 1,927,135

A moistureproof heat-sealable nitrocellulose composition containing 50% to 75% nitrocellulose, 25% to 50% plasticizer, and 1% to 1.75% wax.

U.S. patent No. 1,927,1XX

Moistureproof wax-containing compositions containing up to 5% of a blown oil.

C 10,245

JAR:HW

U.S. patents No. 2,253,781
2,253,782

A process for moistureproofing film by dispersing wax particles in air and depositing them on the film with an air current.

U.S. patent No. 2,121,923

A moistureproofing composition containing a plasticizing resin prepared by condensing an alkyd resin with a sulfonamide-aldehyde resin.

U.S. patent No. 2,170,632

A cellulose derivative coating composition containing as a plasticizer the reaction product of a fatty acid with a mono-carboxylic keto aromatic acid.

U.S. patent No. 2,245,429

Cellulose derivative coatings containing as a slip and anti-blocking agent, finely dispersed particles of a hydrophilic colloid.

U.S. patent No. 2,285,852

A film comprising a water-sensitive non-fibrous base sheet, coated with a nitrocellulose lacquer containing urea-formaldehyde resin in quantities greater than 50% of the total coating.

There is no need or advantage in using these patents in any of our processes at the present time.

We plan to review this subject annually, adding to the list any other Sylvania patents as they issue.

The following patents are of most interest to us and may be useful in the future:

U.S. patent No. 1,997,10(illegible)

This patent covers the use of a blown oil as a blending agent in moistureproofing compositions. It is quite possible that at some future time we may be interested in this for some special application.

JAM:HW

C-10245

Dr. O. M. Kerns — May 1, 1944

U.S. patent No. 2,121,023

This patent covers a moistureproofing composition containing as a plasticizing resin a reaction product of an alkyd resin with a sulfonamide-aldehyde resin. This is the type of material we have called a "heat-seal promoter". We have interpreted this patent to mean a resin which has been reacted prior to incorporation in a coating composition. So far, we have not been able to see any advantage in following this procedure as equivalent, or better, results seem to be obtained using a mixture of two such resins.

Our MF-33 formula employs a mixture of these resins. It contains Petrex-7 HT, an alkyd resin and Santolite MHP, a toluene-sulfonamide-formaldehyde resin. We are writing Dr. Smith on this to determine whether we have misinterpreted the claims and perhaps, it could be argued, because of the possibility of slight reaction during the coating operation, the patent is infringed.

It is quite possible that a new resin of the type described in the patent may be discovered some day which we could advantageously use. However, the chances of our not being able to duplicate it with selected mixtures seems rather small.

U.S. patents No. 1,[illegible],[illegible]
2,172,032

These patents cover two types of plasticizers which we have examined and found generally inferior to the ones we have been using. For some new specific application they might be good.

U.S. patent No. 2,2[illegible],152

This patent covers a composition containing nitrocellulose, a plasticizer, and urea-formaldehyde resins in concentrations greater than 5%. Wax may be added. This represents a single-coat anchor composition. It contains anchoring resin in concentrations higher than we have found either necessary or beneficial. It is quite conceivable, however, that for some particular use or for some particular base sheet, a coating of this type would be preferable to the single-coat anchoring compositions now in use.

[illegible]

J. A. Mitchell

C-10245

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EXECUTIVE
2416
COMMITTEE

November 27, 1944

TO : EXECUTIVE COMMITTEE

FROM : COMMITTEE ON PATENTS

GOVT. EXHIBIT NO. 2748
CIVIL Action 1216

REPLACEMENT CROSS-LICENSE AGREEMENT WITH SYLVANIA INDUSTRIAL CORPORATION RE MOISTURE-PROOF REGENERATED CELLULOSE FILM PATENTS COVERING CHANGE FROM EXCLUSIVE TO NON-EXCLUSIVE BASIS; AND ELIMINATION OF PROVISIONS LIMITING SALES EXCEPT UPON PAYMENT OF HIGHER ROYALTY:

At meeting of the Committee on Patents, held today, letter was presented from L. A. Yerkes, General Manager, Rayon Department, dated November 21, 1944, concurring in suggestion of our Legal Department that authority be granted to open negotiations with Sylvania Industrial Corporation with a view to effecting changes referred to above.

Of the five original basic du Pont patents under which Sylvania has been exclusively licensed since 1933, one product patent will expire November 26, 1946, and the balance on October 6, 1948. Pursuant to original agreement, du Pont has granted Sylvania a number of supplemental exclusive licenses on later moistureproof cellulose film patents.

Sylvania has exclusively licensed du Pont under a number of its patents in this field, but it is understood that we have not operated under any of such patents and, consequently, have not paid any royalties to them.

Total royalty payments by Sylvania to du Pont to the end of September 1944 have aggregated $1,417,470, and for the last few years have averaged something over $200,000 a year.

Under the original agreement, Sylvania and du Pont were permitted to sell, before payment of higher than basic royalties, 20% in the case of Sylvania, and 80% for du Pont, of combined sales of licensed film for the year 1933, this allowable maximum rising 1% for Sylvania, and declining 1% for du Pont, each year for 9 years, or until maximums of 29% for Sylvania, and 71% for du Pont, were reached in 1942, and since continuing on that basis. Sylvania never reached its 29% allowable maximum of sales, beyond which higher royalty would have been payable. This feature has not applied so far to du Pont because, as stated above, it has not operated under any patents licensed by Sylvania.

Provision was made in original agreement for both parties to grant supplemental exclusive licenses under patents in the licensed field issuing prior to October 6, 1948. It is now proposed in replacement agreement to have each party grant non-exclusive licenses under specified existing licensed patents, leaving any future licensing to be separately negotiated.

After discussion, it was moved and unanimously carried that the letter be ordered filed, and that copies of it be forwarded to the Executive Committee with recommendation that the attached resolution be adopted.

COMMITTEE ON PATENTS

BY J. P. Reed

SECRETARY

TO EXECUTIVE COMMITTEE ROOM

enclosure

COPY TO: L. A. YERKES

C-8656-A

GOV'T EXHIBIT NO. 2255
Civil Action 1216

AGREEMENT made this first day of January, 1945, by and between E. I. DU PONT DE NEMOURS AND COMPANY, a corporation organized and existing under the laws of the State of Delaware, and having its principal place of business at Wilmington, Delaware (hereinafter called DU PONT), and SYLVANIA INDUSTRIAL CORPORATION, a corporation organized and existing under the laws of the State of Virginia, and having its principal place of business in New York, New York (hereinafter called SYLVANIA);

W I T N E S S E T H:

WHEREAS, DU PONT and SYLVANIA are the owners respectively of the United States Letters Patent set forth hereinafter; and

WHEREAS, DU PONT and SYLVANIA desire to obtain from and are willing to grant each to the other non-exclusive licenses of the character set forth hereinafter;

NOW, THEREFORE, in consideration of the sum of One Dollar ($1.00) and other valuable considerations each to the other in hand paid and in consideration of the premises and conditioned upon the true and faithful performance of the undertakings and covenants herein set forth to be kept and performed, it is hereby mutually agreed as follows:

1. DU PONT hereby grants to SYLVANIA, under the following United States Letters Patent and any reissues thereof, non-exclusive licenses to manufacture and sell, throughout the United States of America, its territories and possessions,

present and future, an article of manufacture comprising a sheet or film of regenerated cellulose combined with a moistureproofing composition and in said manufacture to utilize the inventions claimed in any or all of the said following DU PONT patents, but not otherwise. The term "regenerated cellulose", as used herein, shall include any cellulose materials that are or can be obtained by precipitation, recovery or coagulation from an aqueous or an alkali-aqueous solution:

(a)	Charch & Prindle Patent No.	1,737,187,	issued Nov. 26,1929
	Charch & Prindle	1,826,696	Oct. 6, 1931
	Charch & Craigue	1,826,697	"
	Charch & Craigue	1,826,698	"
	Charch & Prindle	1,826,699	"
(b)	Charch	1,962,338	June 12, 1934
	Charch, Hyden & Siemann	1,972,869	Sept.11, 1934
	Charch	1,989,681	Feb. 5, 1935
	Leach & Siemann	1,990,080	"
	Hitt	1,997,583	Apr. 16, 1935
	Charch	2,022,490	Nov. 26, 1935
	Charch, Hyden & Siemann	2,030,962	Feb. 18, 1936
	Charch & Hershberger	2,042,589	June 2, 1936
	Siemann	2,042,638	"
	Hershberger	2,051,944	Aug. 25, 1936
	Charch	2,061,374	Nov. 17, 1936
	Charch	2,064,292	Dec. 15, 1936
	Charch & Hershberger	2,077,396	Apr. 20, 1937
	Collins & Larson	2,077,399	"
	Collins	2,077,400	"
	Mitchell	2,079,379	May 4, 1937
	Bradshaw	2,079,395	"
	Meigs	2,085,816	July 6, 1937
	Bateman	2,087,013	July 13, 1937
	Charch & Hershberger	2,094,771	Oct. 5, 1937
	Maney	2,096,122	Oct. 19, 1937
	Charch, Brubaker & Meigs	2,098,534	Nov. 9, 1937
	do	2,098,535	"
	do	2,098,536	"
	do	2,098,537	"
	do	2,098,538	"
	do	2,098,539	"
	do	2,098,540	"
	do	2,098,541	"
	do	2,098,542	"
	Brubaker	2,100,377	Nov. 30, 1937
	Finzel & Drew	2,108,805	Feb. 22, 1938
	do	2,108,809	"
	do Reissue No.	20,847/2,108,809	Sept.28, 1938
	do Patent No.	2,108,810	Feb. 22, 1938
	Gladding & Maney	2,122,418	July 5, 1938
	Meigs	2,122,433	"
	Ellsworth	2,123,883	July 19, 1938

(b) Cont'd.:

Barrett	Patent No. 2,137,636,	issued Nov.	22, 1938
Hershberger	2,138,578	Nov.	29, 1938
Meigs	2,144,383	Jan.	17, 1939
Ubben	2,147,180	Feb.	14, 1939
Charch	2,147,628	Feb.	21, 1939
Charch	2,147,629	"	
Charch & Bateman	2,159,007	May	23, 1939
Hershberger	2,159,151	"	
Hershberger	2,159,152	"	
Meigs	2,169,366	Aug.	15, 1939
Flint & Mitchell	2,177,645	Oct.	31, 1939
Mitchell	2,186,262	Jan.	9, 1940
Mitchell	2,193,831	Mar.	19, 1940
Latour	2,205,210	June	18, 1940
Mitchell	2,205,428	June	25, 1940
Finzel	2,209,965	Aug.	6, 1940
Mitchell	2,213,252	Sept.	3, 1940
Flint	2,216,812	Oct.	8, 1940
Mitchell	2,216,826	"	
Mitchell	2,216,827	"	
Lanning	2,234,565	Mar.	11, 1941
Mitchell	2,236,546	Apr.	1, 1941
Mitchell	2,273,880	Feb.	24, 1942
Jebens	2,279,788	Apr.	14, 1942
Jebens	2,280,828	Apr.	28, 1942
Mitchell	2,281,589	May	5, 1942
Mitchell	2,292,393	Aug.	1, 1942
Ernsberger	2,293,458	Aug.	18, 1942
Lanning	2,301,959	Nov.	17, 1942
Holt	2,306,478	Dec.	29, 1942
Mitchell	2,307,057	Jan.	5, 1943
Heaven & Berry	2,311,831	Feb.	23, 1943
Mitchell	2,316,274	Apr.	13, 1943
Mitchell	2,321,764	June	15, 1943
Mitchell	2,333,730	Nov.	9, 1943
Mitchell	2,342,204	Feb.	22, 1944
Mitchell	2,350,366	June	6, 1944
Charch	2,350,385	"	
Hershberger	2,360,947	Oct.	24, 1944
Mitchell	2,364,089	Dec.	5, 1944
Mitchell	2,364,158	"	

2. For the licenses granted in Article 1 by DU PONT to SYLVANIA, SYLVANIA agrees to pay to DU PONT the following royalties:

(A) For articles made and/or sold under the licenses granted under the said United States Letters Patent listed in Article 1 (a);

(1) one and three-quarters per cent (1-3/4%) of the net selling price of articles sold during 1945;

(2) one and one-half per cent (1-1/2%) of the net selling price of articles sold during 1946;

(3) one and one-quarter per cent (1-1/4%) of the net selling price of articles sold during 1947;

(4) one per cent (1%) of the net selling price of articles sold during 1948;

(B) two per cent (2%) of the net selling price of articles made and/or sold under the licenses granted under the said United States Letters Patent listed in Article 1(b);

(C) the royalties provided for in this Article shall not be cumulative, but the royalty rate applicable to any particular product shall be the higher royalty rate required by any license under which the product is made and/or sold and in no case shall the royalty rate applicable to any particular product exceed two per cent (2%) of the net selling price thereof.

3. SYLVANIA hereby grants to DU PONT, under the following United States Letters Patent and any reissues thereof, non-exclusive licenses to manufacture and sell, throughout the United States of America, its territories and possessions, present and future, an article of manufacture comprising a sheet or film of regenerated cellulose combined with a moistureproofing composition and in said manufacture to utilize the inventions claimed in any or all of the said following SYLVANIA patents, but not otherwise:

(a)	Cornwell	Patent No. 1,989,683,	issued Feb. 5, 1935
	Cornwell	1,997,105	Apr. 9, 1935
	Cornwell	2,121,023	June 21, 1938
	Cornwell	2,170,632	Aug. 22, 1939
	Cornwell & Rosser	2,285,852	June 9, 1942
(b)	Cornwell	1,997,106	Apr. 9, 1935
	Reichel	2,053,781	Sept. 8, 1936
	Reichel	2,053,782	Sept. 8, 1936
	Reichel & Craver	2,245,499	June 10, 1941

4. (A) The licenses granted under the said United States Letters Patent listed in Article 3(a) are royalty free;

(B) DU PONT agrees to pay to SYLVANIA a royalty of one per cent (1%) of the net selling price of articles made and/or sold under the licenses granted under the said United States Letters Patent listed in Article 3(b);

(C) The royalties provided for in this Article shall not be cumulative, but the royalty rate applicable to any particular product shall be the higher royalty rate required by any license under which the product is made and/or sold but in no case shall the royalty rate applicable to any particular product exceed one per cent (1%) of the net selling price thereof.

5. The duration of each license granted pursuant to this agreement shall extend for the life of each particular patent licensed herein unless any such license shall be terminated as provided hereinafter.

6. The royalties provided for herein shall be paid only for all articles or products licensed herein and sold for use within the United States of America, its territories and possessions, present and future. This royalty will be paid on

all sheets or films of regenerated cellulose combined with a moistureproofing composition and characterized by a moisture-proof quality equivalent to its ability to resist the diffusion of water vapor therethrough at least seven (7) times, or higher where a greater value is required in any of said patents, as effectively as uncoated sheets or films of regenerated cellulose when tested under the following standard conditions: The sheet or film in question is hermetically sealed with beeswax across the opening of a shallow glass dish, 25 cc. of water at 45° C. is introduced through an opening made at the circumference, which is then resealed, the dish placed in an oven provided with a circulation of continuously dried air at 39.5° C. for twenty-four (24) hours. The loss in weight in water, compared with a similar test on the uncoated or untreated sheet, will provide the basis of comparison.

7. The term "net selling price" wherever the same occurs in this agreement shall be construed to mean the gross selling price less freight (if paid by the seller), cash and or trade discounts, and sales taxes or excise taxes (if paid by the seller), but without other deductions of any kind or description except that discounts shall be deducted when made by reason of goods being off-grades and except that no royalty whatever shall be due when off-grades such as roll ends, plain white thirds, and colored seconds are, by reason of their quality and market conditions, sold at or below the net selling price of corresponding grades of non-moistureproof sheets of regenerated cellulose currently sold by the seller.

It is understood that, in the event either party shall fabricate moistureproof sheets or films of regenerated cellulose upon which royalty is payable under this agreement, into a different form or article for sale, the royalty shall be computed on the basis of the "net selling price" of such sheets or films prior to such fabrication.

8. Each party agrees to keep records of all articles sold under the provisions of this agreement and to make to the other party quarterly reports showing the quantity of goods so sold and returns (credits allowed for returns being deductible for royalty accounting) and the respective royalties due thereon, according to the terms of this agreement. The first report shall be rendered as of March 31, 1945, on all items sold between the date of this contract and said March 31, and quarterly reports will be rendered thereafter, accompanied by a statement of a responsible officer. Each party shall have the right at any time within business hours to have a certified public accountant of its own selection examine said record. Royalties accrued and due to be paid by either party hereto shall be paid quarterly with the submission of the quarterly report, and the latter shall be submitted within thirty (30) days after the end of the respective quarterly period.

9. No right or license, direct or indirect, express or implied, is granted by virtue of this agreement under any patents, domestic or foreign, owned by either party except those specifically enumerated above.

10. In the event that either party hereto shall grant to another a license of the character and scope granted in this agreement, under terms more favorable than those herein provided for, the licensing party shall notify the other party to this agreement, within sixty (60) days, and said other party to this agreement shall have the privilege, upon written notice, given to said licensing party, of substituting the essential terms of such other license in place of the essential terms of the license herein granted.

11. Each party hereto agrees that every article sold by it, embodying the invention or produced by the practice of the invention of a patent under which said party is licensed by the terms of this agreement shall be marked by a notice such as "Licensed under U.S. Patent " (as the case may be).

12. In the event that infringement of any of the patents under which a license is granted by this agreement is commenced and continued by a third party engaged in the production and/or sale of sheets or films of moistureproof regenerated cellulose as defined in Article 1 hereof, to an extent and in a manner which adversely and substantially affects the sales of licensed material by the licensed party (Licensee), said party may give to the licensing party (Licensor) written notice of such infringement, together with evidence of its existence and of its adverse and substantial effect upon Licensee's sales. If, after such notice, Licensor does not, within three (3) months thereafter, initiate and diligently

conduct steps to stop such infringement, the Licensee may terminate his license with respect to any patent so infringed.

13. If, in any suit for infringement of any patent licensed herein, any of the claims of said patent shall be held by a United States District Court to be invalid or not infringed, the interpretation placed upon the claim or claims by the Court shall be followed by the parties hereto in determining whether royalties are due under said patent or patents, from and after the date of entry of the decree of such Court, and royalties on business done thereafter will be payable by Licensee only in accordance with such interpretation, until and unless the same shall be modified or reversed by a subquent Court decree in the same Circuit or by the United States Supreme Court, in which event royalties shall thereafter be paid in accordance with such new interpretation. If, however, any patent licensed hereunder shall be held in one Circuit invalid by a decision from which no appeal can be taken and which is not overruled, and shall be held in another Circuit valid by a decision which is not reversed or overruled, royalties shall thereafter be payable under said patent as to sales within or for use within the jurisdiction where said patent is held valid but not otherwise, unless and until the conflict of decisions is removed by controlling decision in one such Circuit or by a Court of superior jurisdiction. A holding of invalidity of certain claims shall not affect the royalty payments under a claim or claims which are valid thereover and are not declared invalid.

14. If the practice by either party hereto, under the licenses of this agreement should necessarily infringe any claim of any dominating United States patent owned by a third party, and for that reason, a license is obtained under such third party United States patent then with respect to the patent so dominated, the party licensed herein may deduct from royalty payable only under said dominated patent the per pound royalty payable for the license granted under such third party patent, up to but not beyond fifty per cent (50%) of the royalty payable under said dominated patent.

15. Whenever notice is required in this agreement, it shall be sent postpaid registered mail, addressed to the last known address of the party entitled to receive the same.

16. The licenses granted under this contract do not include any right to sublicense and shall not be assignable except that they shall respectively pass to the legal successor or assignee of the entire business of either party relating to the subject matter of the licenses granted herein and shall be subject to all provisions of this contract. Any subsidiary of either party hereto may at any time elect to accept a license hereunder on the same terms and conditions as expressed herein, and on so electing such subsidiary shall thereafter be obligated to pay the royalties due and abide by the terms of the license. For the purpose of this section, a subsidiary of either party hereto is defined as a company in which said party owns more than fifty per cent (50%) of the subsidiary stock which is entitled to vote for directors.

IN WITNESS WHEREOF the parties hereto have caused this instrument to be signed in duplicate by their respective proper officers and their respective corporate seals to be hereunto affixed as of the day and year first above written.

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E. I. DU PONT DE NEMOURS AND COMPANY

Attest: [signature]
Asst. Secretary.

By [signature] - L.A. Yerkes
General Manager,
[illegible] DEPARTMENT

SYLVANIA INDUSTRIAL CORPORATION

Attest: [signature]
Asst. Secretary.

By [signature] F.H. Reichel
President.

E. I. DU PONT DE NEMOURS & COMPANY

RAYON DEPARTMENT

GOVT EXHIBIT NO. 2758
Action 1216

Wilmington, Delaware
January 18, 1945

TO: COMMITTEE ON PATENTS

FROM: RAYON DEPARTMENT

SUBJECT: REPLACEMENT CROSS-LICENSE AGREEMENT WITH SYLVANIA INDUSTRIAL CORPORATION RE MOISTUREPROOF REGENERATED CELLULOSE FILM PATENTS

Pursuant to the Executive Committee Action of November 30, 1944, reading in part as follows:

"RESOLVED, that the Rayon Department be and it hereby is authorized to open negotiations with SYLVANIA INDUSTRIAL CORPORATION covering replacement of cross-license agreement, dated April 26, 1933, as amended, and the supplemental licenses exchanged pursuant thereto, re moistureproof regenerated cellulose film patents, in order mainly (a) to change from an exclusive to a non-exclusive license basis limited to specified existing cross-licensed patents, and (b) to eliminate provisions limiting sales except upon payment of higher than basic royalty rates, subject to a provision that the licensee will be given the benefit of any lower rates charged other licensees under the same patents;"

the Rayon Department opened negotiations with Sylvania and presents herewith a proposed termination agreement and a proposed cross-licensing agreement, in form approved by the Legal Department, which accomplish the objects of said Resolution.

In view of the change of the licenses from exclusive to non-exclusive, Sylvania requested a reduction in royalty rates.

The royalties payable by Sylvania under the proposed agreement are as follows:

(a) under the five patents licensed to Sylvania in the agreement of April 26, 1933, the last of which expires on October 6, 1948,

(1) For 1945, 1-3/4% of the net selling price;
(2) For 1946, 1-1/2% " " " " "
(3) For 1947, 1-1/4% " " " " "
(4) For 1948, 1% " " " " "

(b) under the patents issued after the signing of the agreement of April 26, 1933, 2% of the net selling price.

The royalties which are payable by Sylvania under the present agreements are as follows:

(a) under the first five patents, 2% of the net selling price;
(b) under the subsequent patents, 2% of the net selling price, except that the royalty is 4% where the patents are in special categories as defined in the agreement of April 26, 1933.

RETURN TO EXECUTIVE COMMITTEE ROOM 9069

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The royalties payable by du Pont under the proposed agreement are:

(a). 1% for the patents hitherto licensed at 2% which are in the special categories;
(b) the other licenses are royalty free as in the present agreements.

The royalties in the proposed agreement, as in the present agreement, are non-cumulative, but the licensed product will bear the higher royalty rate required by any patent under which the product is made or sold.

Assuming that Sylvania's production for the period of January 1945 through September 1948 will be at the same rate as its 1944 production, the estimated reduction in royalty under the first five patents, for that period, is as follows:

Under Present Agreements	Under Proposed Agreement	Reduction
$757,908	$529,799	$228,109

Sylvania at present operates to a minor extent under at least one of the patents carrying 4% royalty and possibly under other patents issued subsequent to the first five. The reduction in the royalty rate applicable to the special categories, from 4% to 2%, will reduce royalty receipts after January 1, 1945. For 1944 (9 months actual-three months estimated) this additional royalty is $13,087, representing about 6% of Sylvania's sales.

After October 6, 1948, it is believed that Sylvania will operate under one or more of the remaining licensed patents, but we cannot reasonably estimate the royalty to be received for such operations.

The Rayon Department requests authority to execute the proposed termination agreement and the proposed cross-licensing agreement in substantially the form attached.

CELLOPHANE DIVISION

JOHN E. HATT, MANAGER

John E. Hatt

APPROVED:

for L. A. Yerkes
GENERAL MANAGER
RAYON DEPARTMENT

EXECUTIVE COMMITTEE RO...

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8645-E

GOV T EXHIBIT NO. 4008

THIS AGREEMENT entered into this 27th day of September, 1938, between RAINIER PULP & PAPER COMPANY (hereinafter referred to as "Pulp Company"), a corporation of the State of Delaware, party of the first part, and DU PONT RAYON COMPANY (hereinafter referred to as "Rayon Company"), a corporation of the State of Delaware, party of the second part,

W I T N E S S E T H :

WHEREAS Pulp Company represents that it is engaged in the production of paper pulp used in the manufacture of high grade paper and has available a source of supply of raw materials which it believes is suitable for the production of sulphite pulp for use in the manufacture of rayon and other cellulose products; and

WHEREAS Pulp Company desires to acquire from Rayon Company such technical and research data and information which Rayon Company has with respect to the purposes and requirements of a sulphite pulp suitable for use in the manufacture of rayon and other cellulose products, and also desires the cooperation and assistance of Rayon Company to enable Pulp Company to engage in the production of sulphite pulp for use as aforesaid; and

WHEREAS Rayon Company represents that it has carried on extensive research work and experiments having for their object the development and improvement of sulphite pulp for use in the manufacture of rayon and other cellulose products, and is willing, under the terms and conditions hereinafter set forth, to furnish Pulp Company the results of such research work and experiments, and to furnish Pulp Company the full cooperation of Rayon Company's technical and research staffs in all matters relating to the development and improvement of the quality of sulphite pulp for the uses aforesaid;

NOW, THEREFORE, in consideration of the premises and the mutual covenants herein contained, the parties hereto have agreed and by these presents do agree with each other, as follows:

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ARTICLE X.

TECHNICAL COOPERATION.

Rayon Company agrees to furnish Pulp Company the results of its research work and experiments which have had for their object the development and improvement of sulphite pulp for use in the manufacture of rayon and Cellophane and other cellulose products, and to furnish Pulp Company, during the life of this agreement, the reasonable cooperation of Rayon Company's technical and research staffs in all matters relating to the development and improvement of the quality of sulphite pulp for use as aforesaid, and to that end Rayon Company will, during the life of this agreement, communicate and make available to Pulp Company all such technical knowledge, information and experience as Rayon Company may possess or acquire relating to the qualities, characteristics, improvements and requirements of such sulphite pulp, to the extent that Rayon Company is not restricted from so doing because of unexpired patents owned by others.

ARTICLE XI.

RELEASE AND EMPLOYMENT OF DR. PICKENS.

As one of the first steps in the cooperation herein referred to, Rayon Company has heretofore given to Dr. Russell M. Pickens leave of absence from its employ to enable him to be employed by Pulp Company, it being agreed that during the period not exceeding two (2) years from June 8, 1930, Dr. Pickens' service record with Rayon Company shall be maintained unimpaired, so that if he shall return to the employ of Rayon Company on or before the expiration of said two (2) years period he shall have the same rights and benefits as though he had remained in the employ of Rayon Company during such period. If, however, at or before the expiration of such two (2) years period, Pulp Company shall desire to retain Dr. Pickens in its employ beyond such period, and Dr. Pickens agrees to remain in its employ, Rayon Company will consent to such employment, and upon execution of a contract therefor between Dr. Pickens and Pulp Company, Dr. Pickens' service record with Rayon Company shall thereupon terminate.

ARTICLE III.

PURCHASE OF SULPHITE PULP BY RAYON COMPANY AND OTHERS.

If and when sulphite pulp of a grade and quality which in the opinion of Rayon Company is suitable for its use, and/or for the use of the other companies hereinafter mentioned, has been produced by Pulp Company and Pulp Company is in position to make current commercial delivery thereof, then Rayon Company, and the other companies hereinafter mentioned, shall have the right and option, during the life of this agreement, to purchase from Pulp Company all or any part of its or their requirements of sulphite pulp, and Pulp Company agrees to sell and deliver such sulphite pulp to Rayon Company and the other companies hereinafter mentioned upon receipt of orders for the same, but not in excess of fifty thousand (50,000) tons thereof per year during the life of this agreement; provided, however, that in the twelve (12) months period commencing one year after the date when such pulp shall first be delivered hereunder, Pulp Company shall not be required to deliver hereunder more than three thousand (3,000) tons of said pulp in any one month, nor more than thirty thousand (30,000) tons in said twelve (12) months period, unless Pulp Company's installed capacity shall enable it to produce and deliver said pulp without default on its other contract obligations; provided further, that in any twelve (12) months period beginning two (2) years or more after the date when said pulp shall first be delivered hereunder, Pulp Company shall not be required to deliver hereunder in any one month more than one thousand five hundred (1,500) tons in excess of the average monthly quantities ordered for delivery hereunder during the year preceding such twelve (12) months period, nor shall Pulp Company be required to deliver hereunder during such twelve (12) months period a total of more than fifteen thousand (15,000) tons of said pulp in excess of the quantity ordered for delivery hereunder during the year next preceding such twelve (12) months period, unless Pulp Company's installed capacity shall enable it to produce and deliver said pulp

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without default on its other contract obligations. It is understood and agreed that if the quantities of pulp ordered for delivery shall be reduced on account of any of the causes specified in Article XI hereof, such reduction shall not be considered in determining the quantities Rayon Company and the other companies hereinafter mentioned are entitled to order for delivery during any subsequent period, and the increased quantities Rayon Company and the other companies hereinafter mentioned are entitled to order for delivery during any of the aforesaid period shall be based upon the quantities ordered for delivery during the designated periods next preceding the time when any of the causes mentioned in Article XI hereof shall have caused such reduction.

It is agreed that the words "other companies hereinafter mentioned", as used in the preceding paragraph of this Article, shall be construed to mean E. I. du Pont de Nemours and Company, a corporation of the State of Delaware, and any corporation of which said E. I. du Pont de Nemours and Company owns more than fifty per cent. (50%) of the voting capital stock.

ARTICLE IV.

PRICES AND TERMS.

If Rayon Company, and/or the other companies mentioned in Article III hereof, shall purchase sulphite pulp hereunder from Pulp Company, the prices to be paid therefor shall be those fixed by Pulp Company from time to time, f.o.b. Shelton, Washington; provided, however, that such price or prices to Rayon Company and/or the other companies mentioned in Article III hereof, shall not be higher for any shipment made during any calendar month than the lowest price at which any sale of pulp of equal or higher grade and quality is made by Pulp Company during the same calendar month to any other purchaser, it being understood that for the purpose of such comparison of prices all freight, insurance, and shipping charges paid by Pulp Company and entering into any delivery price to any other purchaser shall be de-

ducts, and the price to Pulp Company f.o.b. Shelton, Washington, shall be determinative of the price to be paid by Rayon Company and the other companies mentioned in Article III hereof. It is further agreed that during each of the first three (3) years after the date of this agreement the price for sulphite pulp to Rayon Company and the other companies mentioned in Article III hereof, f.o.b. Shelton, Washington, shall not in any event be more than Eighty-four Dollars ($84.00) per ton for the first two thousand five hundred (2,500) tons ordered by them for shipment during each of said first three (3) years, nor more than Eighty Dollars ($80.00) per ton on all additional orders by them for shipment during each of said first three (3) years.

ARTICLE V.

COMPENSATION TO RAYON COMPANY FOR INFORMATION, DATA AND ASSISTANCE IN DEVELOPING AND IMPROVING SULPHITE PULP.

It is agreed that the value of the information, data and assistance to be furnished and rendered hereunder by Rayon Company to Pulp Company, in the development and improvement of sulphite pulp, will be the amounts hereinafter specified in subparagraphs (a), (b) and (c) of this Article, and Pulp Company agrees to pay said amounts to Rayon Company, during the life of this agreement, payment thereof to be made, as follows:

When Rayon Company and/or any of the other companies mentioned in Article III hereof has ordered from Pulp Company for delivery hereunder, during any year during the life of this agreement, a minimum of three thousand (3,000) tons of sulphite pulp, Pulp Company shall pay to Rayon Company the amounts per ton, hereinafter specified in subparagraphs (a), (b) and (c) of this Article, on all sulphite pulp ordered for delivery during such year, including the three thousand (3,000) tons minimum above mentioned:-

(a) On all deliveries of sulphite pulp to Rayon Company, and/or to any of the other companies mentioned in Article III hereof, at a price of Eighty Dollars ($80.00) per ton or more, f.o.b. Shelton,

Washington, an amount equal to Three Dollars and Seventy-five cents ($3.75) for each ton of sulphite pulp so delivered;

(b) On all deliveries of sulphite pulp to Rayon Company, and/or to any of the other companies mentioned in Article III hereof, at a price of Seventy-five Dollars ($75.00) per ton or more, and less than Eighty Dollars ($80.00) per ton, f.o.b. Shelton, Washington, an amount equal to Three Dollars and twenty-five Cents ($3.25) for each ton of sulphite pulp so delivered; and

(c) On all deliveries of sulphite pulp to Rayon Company, and/or to any of the other companies mentioned in Article III hereof, at prices less than Seventy-five Dollars ($75.00) per ton, f.o.b. Shelton, Washington, an amount equal to Two Dollars and Seventy-five Cents ($2.75) for each ton of sulphite pulp so delivered.

Payments by Pulp Company to Rayon Company of the amounts specified in subparagraphs (a), (b) and (c) of this Article shall be made in cash or its equivalent on the twenty-fifth of each calendar month, and such payments by Pulp Company to Rayon Company shall continue to be made, in accordance with the provisions of this Article, on the twenty-fifth of each calendar month during each year during the life of this agreement.

It is further understood and agreed that the combined purchases of Rayon Company, and the other companies mentioned in Article III hereof, shall be considered together in determining the payments to be made by Pulp Company to Rayon Company under the provisions of this Article.

ARTICLE VI.

TERMS OF PAYMENT.

Payment of all invoices for sulphite pulp shipped hereunder shall be made the sixteenth of each month covering all deliveries made the previous month accompanied by bills of lading. In case of dispute as to weight or price, such payment of Pulp Company's invoice shall nevertheless be made in full, subject to the refund of overpayments and to interest allowances thereon, and to adjustment of disputes as hereinafter provided.

ARTICLE VII.

DELIVERIES.

If Rayon Company, and/or any of the other companies mentioned in Article III hereof, shall purchase sulphite pulp from Pulp Company hereunder, deliveries thereof shall be made by Pulp Company at such plant of Rayon Company, or of any of the companies mentioned in Article III hereof, as shall be designated by them for such delivery, and such delivery shall be made within a reasonable time after receipt by Pulp Company of the orders for such shipment. Rayon Company, and/or the other companies mentioned in Article III hereof, shall specify the quantities of said respective shipments as far in advance of the date of shipments as their needs and requirements shall reasonably permit, and in any case Pulp Company shall not be liable for any delays of shipments where shipment from Pulp Company's plant is made within thirty (30) days after receipt by Pulp Company of the order for such shipment , nor shall Pulp Company be liable for delays in delivery due to boat shortage, boat delays or shipments lost by rail or at sea.

ARTICLE VIII.

WEIGHT AND MOISTURE.

In all instances where the word "ton" occurs in this agreement, it is understood to refer to a ton of two thousand (2,000) pounds. The pulp shall be invoiced on a basis of ninety per cent. (90%) sulphite pulp, and shall be considered to consist only of sulphite pulp and water. While the pulp shall be invoiced on the basis of ninety per cent. (90%) sulphite pulp, all such pulp shall be dried at the pulp mill to a sulphite pulp content of ninety - four per cent. (94%), plus or minus two per cent. (2%), it being the intention of the parties that shipments which, at the pulp mill, vary between ninety - two per cent. (92%) and ninety - six per cent. (96%) sulphite pulp, will be accepted, except that in any given car the sulphite pulp content shall not vary more than two

per cent. (2%) between the extremes of samples.

For the purposes of this agreement, "sulphite pulp" shall be defined as a pulp in which the total cellulose consists of not less than eighty - seven per cent. (87%) and not more than ninety per cent. (90%) alpha cellulose, and which is generally satisfactory for the manufacture of rayon and similar synthetic textile products and in the manufacture of Cellophane and other cellulose products.

ARTICLE IX.

TESTS.

If Rayon Company, and/or any of the other companies mentioned in Article III hereof, shall dispute the weight of any sulphite pulp invoiced hereunder, it or they shall hold intact a sufficient quantity, not less than ten per cent. (10%), of the pulp on which complaint is made, and promptly notify Pulp Company by telegraph of the weight and test claimed. If Pulp Company shall dispute such claimed weight, it shall then promptly send to the mill at which such shipment was delivered an Approved Pulp Testing Chemist to make a joint test with the company to whom the sulphite pulp was delivered, and this joint test shall be final and shall be the basis of settlement. If the difference between the actual weight and the invoiced weight does not exceed one per cent. (1%), the invoice shall stand as rendered. If the difference between the actual weight and the invoiced weight shall be greater than one per cent. (1%), then and in such case the party to whom the pulp was delivered shall have the right and option to reject the shipment or to accept it on the corrected weight basis.

The above tests shall be made in accordance with the standard practice employed at the time of the test by the Technical Association of the Pulp and Paper Industry, and the cost of the joint test shall be borne and paid by the party in error.

ARTICLE X.

CLAIMS.

No claim relating to the quality or condition of any sulphite pulp received hereunder shall be recognized unless made by telegraph promptly after the discovery of such quality or condition complained of at the point of delivery.

ARTICLE XI.

FORCE MAJEURE.

Either party hereto, and/or any of the companies mentioned in Article III hereof, may wholly or partially abate or omit the making or the acceptance of any deliveries of sulphite pulp under this agreement when prevented from making or using because of any complete or substantial partial interruption of operations caused by strikes, fires, explosions, combinations of workmen, shortage of materials, supplies or labor, breakdown of machinery, floods, drought, embargoes, war, acts of God, or any cause beyond the control of such party. In case of any such interruption of Rayon Company's operations, and/or of the operations of any of the companies mentioned in Article III hereof, for which sulphite pulp has been ordered hereunder, shipments in transit at the time of notice to Pulp Company of such interruption must be accepted, but, except as the company affected may otherwise direct, no further shipments shall be made to such party until it gives notice that the cause of the interruption has ceased to exist. Either party hereto, and/or any of the companies mentioned in Article III hereof, as the case may be, shall give immediate notice of the cause and commencement of such interruption, and when such interruption is terminated shall give immediate notice of readiness to make or receive shipments hereunder, as the case may be.

ARTICLE XII.

HIGH ALPHA PULP.

Pulp Company intends to make investigations and to undertake experimental work with reference to the production by it of high alpha pulp,

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and Rayon Company agrees to furnish technical cooperation thereof as provided in Article I hereof. In the event that Pulp Company determines to undertake the commercial production of such high alpha pulp and determines that it is able to sell such pulp without infringement of patents, Pulp Company agrees to give to Rayon Company and the other companies mentioned in Article III hereof, the right and option (to be exercised by the execution of a suitable contract therefor within ninety (90) days after notice by Pulp Company) to purchase from Pulp Company all or any part of its or their requirements of high alpha pulp, upon terms and conditions generally similar to and at least as favorable to the purchasers as those herein contained for sulphite pulp, except that it is agreed that the purchase price per ton for such high alpha pulp will be as much higher per ton than the price for sulphite pulp as Pulp Company may determine.

The words "high alpha pulp" as used herein shall mean the grade and quality of wood pulp having an alpha cellulose content generally more than ninety per cent. (90%) and used in the manufacture of rayon and all similar synthetic textile products, and in the manufacture of Cellophane and other cellulose products.

ARTICLE XIII.

TERM OF AGREEMENT.

The right and option of Rayon Company, and of the companies mentioned in Article III hereof, to purchase sulphite pulp from Pulp Company hereunder shall continue for a period of ten (10) years from the date of this agreement; provided, further, that if, during said period Rayon Company, and the companies mentioned in Article III hereof, shall have purchased from Pulp Company an aggregate quantity of one hundred thousand (100,000) tons of pulp, then Rayon Company, upon written notice to Pulp Company, within six (6) months prior to the termination of said ten (10) year period, may extend said right and option for itself, and for the other companies mentioned in Article III hereof, for a further period not exceeding five (5) years from the termination

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of said ten (10) year period.

It is further understood and agreed between the parties hereto that if, at any time during the life of this agreement, Rayon Company shall advise Pulp Company, in writing, that it desires to relinquish, on its behalf, and on behalf of the other companies mentioned in Article III hereof, said right and option to purchase sulphite pulp from Pulp Company, then this agreement shall terminate at the expiration of a period of six (6) months subsequent to the date of such notice, except as to the provisions of Article XV hereof, and Rayon Company shall not thereafter be under any obligation whatever to furnish any further information, cooperation or assistance to Pulp Company hereunder.

ARTICLE XIV.

INFRINGEMENT OF PATENTS.

It is understood and agreed between the parties hereto that neither Rayon Company, nor any of the other companies mentioned in Article III hereof, shall be liable hereunder to Pulp Company for any infringement or contributory infringement of any patents covering the production of sulphite pulp.

ARTICLE XV.

RESTRICTIONS ON USE BY PULP COMPANY OF INFORMATION, ETC. FURNISHED BY RAYON COMPANY.

It is understood and agreed between the parties hereto that much of the information and data furnished hereunder by Rayon Company to Pulp Company is secret information and data of Rayon Company; therefore, in consideration of the disclosure of such information and data by Rayon Company to Pulp Company, Pulp Company agrees that all information and data obtained by it from Rayon Company will be treated as confidential and will not be divulged to anyone, other than officers and employees of Pulp Company; and Pulp Company further agrees for itself, its successors and assigns, that none of the information and/or data obtained hereunder from Rayon Company will be used for any purpose whatsoever other than in the manufacture of pulp.

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ARTICLE XVI.

AGREEMENT EMBODIES ALL UNDERSTANDINGS BETWEEN THE PARTIES HERETO. ~~EXHIBIT NO. 4008~~ ~~JVH 1216~~

This agreement embodies all the understandings and agreements between the parties hereto concerning the subject matter covered hereunder and no modification or changes of this agreement shall be made except by proper amendment or modification in writing by the parties hereto.

ARTICLE XVII.

ASSIGNMENT OR TRANSFER.

This agreement shall be binding upon the successors and assigns of each of the parties hereto, and it is agreed that neither party hereto shall sell or transfer the major part of its properties without requiring the purchaser thereof to assume all of the assignor's obligations hereunder.

IN WITNESS WHEREOF the parties hereto have caused this agreement to be executed, in duplicate, by their duly authorized representatives, and their corporate seals to be hereunto affixed, on the day and year first above written.

RAINIER PULP & PAPER COMPANY

By [signature]
Vice President.

Attest: [signature]
Asst. Secretary.

DU PONT RAYON COMPANY

By [signature] L.A. Yerkes
President.

Attest: [signature]
Asst. Secretary.

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GOVT EXHIBIT NO. 4011
Civil Action 121

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE

PURCHASING DEPARTMENT

March 18, 1940.

Mr. Edward M. Mills, President,
Rayonier Incorporated,
122 East 42d. Street,
New York, N. Y.

Dear Mr. Mills,

Reference is made to contract dated September 27, 1930 between Rainier Pulp & Paper Company and DuPont Rayon Company, whose respective rights and obligations thereunder have been transferred to you and to this Company.

Pursuant to Article XIII of said agreement we hereby notify you that we elect to extend for a period of five additional years, ending September 27, 1945, the right and option to purchase sulphite pulp in accordance with the provisions of said agreement.

Very truly yours,

E. I. DU PONT DE NEMOURS & COMPANY,

By F. LA MOTTE, JR.
Director of Purchases.

C-8599-B

GOV'T EXHIBIT NO. 4089
Civil Action 1216

THIS MEMORANDUM OF AGREEMENT made this 20th day of October, A.D. 1925, between ERWIN O. FREUND, of Chicago, Illinois, first party, DU PONT CELLOPHANE COMPANY, Inc., a Delaware corporation, of Buffalo, New York, second party, and DU PONT RAYON COMPANY, a Delaware corporation, of Buffalo, New York, third party; there bein, also mentioned herein the Visking Corporation not yet incorporated and to be incorporated under the laws of the State of Virginia, and in this memorandum sometimes called fourth party.

WHEREAS, ERWIN O. FREUND, of Chicago, Illinois, first party, is the owner of the following patents;

Great Britian,	William	F.	Henderson,	213931, April 7, 1923
"	"	"	"	226211. April 7, 1923
Australia.	"	"	"	17457, April,24,1924
New Zealand,	"	"	"	52046, April 14,1924
Belgium	"	"	"	317042, April 4,1924
Union of South Africa	"	"	"	363, April 16,1924
Portugal	"	"	"	13639, Feb. 7,1925
France	"	"	"	585755, April 2,1924

and also of the following applications:

U.S.A.,	William	F.	Henderson,	630594,
U.S.A.,	"	"	"	712640
German,	"	"	"	55832
Norwegian	"	"	"	30413
Danish	"	"	"	805
Swiss	"	"	"	28137
Dutch	"	"	"	26730
Swedish	"	"	"	1028
Canadian	"	"	"	285846
Spanish,	"	"	"	11550
Austrian,				(No number - filed Mar. 31,1924)

WHEREAS, DuPont Cellophane Company, Inc., second party, is the owner of Letters Patent of the United States, as follows:

Cohoe and Fox, 1,070,776, granted August 19, 1913
Sausage and Casing Therefor

(see letter of 1/28/36 - B.M.M. Co
to Freund

Cohoe, 1,155,400, granted October 26, 1915
Casings for Sausages,

Cohoe, 1,163,740, granted December 14, 1915
Apparatus and Process for
Making Tubes:

and,

WHEREAS, the DuPont Rayon Company, third party, is desirous of acquiring certain license rights with reference to the patents and applications of said first party:and,

WHEREAS, the patents and applications mentioned above pertain to the manufacture and development of products from viscose and it is desired to form a corporation which shall become the owner of the patents and applications now owned by first party as above mentioned and which corporation shall also be the exclusive licensee, subject to the conditions hereof, of the above mentioned patents now owned by second party;

NOW, THEREFORE, the parties hereto, for sufficient good and valuable consideration received by each party from the other, hereby agree as follows:

1. Said first party will cause a corporation to be known as the Visking Corporation (herein designated fourth party), to be incorporated under the laws of the state of Virginia, the capital stock of said corporation shall be as follows:

Class A - 10,000 shares common stock, par value $10.00 per share, with voting power.

Class B - 1,000 shares common stock, par value $10.00 per share, non-voting stock.

Class C - 1,000 shares Seven Percent Preferred, non-cumulative, non-voting stock, par value $100.00 per share.

The first party agrees to continue his efforts to the development of a practical method of manufacturing casings for any kind of sausage by whatever name known and/or artificial weasands from viscose, to the end that said Visking Corporation may enter upon the commercial production thereof as soon as reasonably possible.

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2. First party agrees to subscribe for and/or cause others to subscribe for 1,000 shares of Class C Preferred stock of the fourth party, being the whole thereof, and to pay therefor, or cause to be paid therefor, $100.00 per share in cash, as follows: $50,000.00 concurrently with the transfer to said fourth party of the patents and applications owned by first party and of the licenses to be granted said fourth party by the second party, as hereinafter provided, and $50,000.00 on the call of the Board of Directors and in no case later than one year from the date hereof.

3. Said first party will transfer to said fourth party all the patents and applications above mentioned and all of his right, title and interest to the same, and will transfer to said fourth party and new or additional patents or applications for improvements upon any of the above mentioned patents or applications and/or any other patents or applications on the subject of viscose. The first party will also transfer to the fourth party all rights to the research work, trade secrets on the subject of viscose already developed or which may be developed in the future in the research work on the subject of viscose which the first party has caused and may cause to be conducted at Mellon Institute of the University of Pittsburgh or elsewhere. In consideration therefor, the first, second and third parties will cause the fourth party, when organized, to issue to said first party or his order, 8,000 shares of said Class A stock and 1,000 shares of said Class B stock.

4. Second party will grant unto fourth party, subject to the conditions hereinafter stated, the exclusive right and license, free from royalties, to employ the inventions set forth in the patents above enumerated as being owned by the second party, for and during the life of said patents, in connection with the manufacture and sale of casings for any kind of sausage by whatever

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name known and/or artificial weasands and for no other purpose, said second party reserving to itself the exclusive right to the use of the inventions of said patents for all other purposes.

5. The consideration and conditions upon which the licenses provided by the last paragraph are to be granted, are as follows:

(a) The fourth party will issue to the second party or to its nominee, 2,000 shares of its Class A stock.

(b) The fourth party will grant unto the second party and unto the third party, for their sole and exclusive use, subject to the conditions hereinafter stated, exclusive joint licenses, free from royalties, to employ the inventions set forth in the above mentioned patents and applications for patents of said first party, for any and all purposes, except the purpose of the manufacture and sale of casings for any kind of sausage by whatever name known and/or artificial weasands, the exclusive rights for the excepted purposes being reserved to said fourth party.

(c) The license granted unto the second and third parties shall extend to and include all countries in which patents have been taken out or may be taken out; and if said second party or said third party has acquired or shall acquire possession of any foreign patents, corresponding with the American patents of said second party the license to be granted unto said fourth party shall extend to and include the countries covered by such foreign patents.

(d) The fourth party shall take over and continue the research work heretofore carried on by or at the expense of the first party, and the second party and the third party shall be entitled to full information on the subject of viscose now or hereafter in the possession of the first party and the fourth party applicable to the business of the second and third parties and to full knowledge of the research work which has been and may hereafter be carried on on the subject of viscose; and to that end the first and fourth parties agree to furnish to the second and third parties all such information and to consent to the technical experts of the second and third parties being received at the Mellon Institute of the University of Pittsburgh or elsewhere, where said research work is being carried on or the results thereof are available, and to aid the second and third parties and their technical experts in every way possible in the investigation of said research work and the acquisition of the information con-

cerning the same contemplated by this paragraph.

(e) The second party shall be entitled to be represented upon the Board of Directors of the fourth party and by not less than one-fifth of the whole number of directors, so long as the second party or its nominees shall hold one-fifth of the voting stock of the fourth party, and to this end the certificate of incorporation or charter, and the by-laws of the fourth party shall contain provisions for cumulative voting of its stockholders for directors so that each stockholder shall be entitled to as many votes as shall equal the number of his shares of stock multiplied by the number of directors to be elected, and he may cast all of such votes for any single director or any two or more of them as he may see fit.

(f) If, at the end of three years after the date of this agreement, the fourth party is not actively engaged in both the production and sale of casings for any kind of sausage, by whatever name known, and/or artificial weasands under the patents or licenses above enumerated or some of them, then the license or licenses granted to it by the second party may at the option of the second party be made non-exclusive, and thereafter the second party may itself manufacture and sell and may license others to manufacture and sell for any and all purposes under its own patents including the manufacture and sale of casings for sausages of any kind, by whatever name known, and/or artificial weasands, or may sell its patents subject to this agreement; and may also itself manufacture and sell under the license or licenses granted to it by the fourth party for any and all purposes except for casings for any kind of sausage, by whatever name known, and/or artificial weasands. If the second party shall exercise such option to render said license or licenses non-exclusive, it shall give sixty days' written notice thereof to the fourth party, served personally or by mail addressed to the last known business address of said fourth party and in the event of the exercise of such option the license or licenses granted unto said second party and third party shall become non-exclusive and thereafter the fourth party may manufacture and sell casings for any kind of sausage, by whatever name known, and/or artificial weasands under its own patents and under the licenses granted to it by the second party, and may also but only under its own patents, manufacture and sell and license others to manufacture and sell for any and all purposes, or may sell its patents subject to this agreement.

(g) The parties further agree that the capital stock of the fourth party shall not be increased as to any class or classes thereof unless the second party shall have the right to acquire one-fifth of the amount of such increase of each class upon the like or equivalent terms as the same may be issued

to other parties. In the event of the breach by the first party and/or the fourth party of any of the conditions above or hereinafter enumerated, upon which conditions the license or licenses from the second party to the fourth party are to be granted, the second party may at its option to be exercised in writing, delivered personally or by registered mail to the fourth party at its last known business address, cancel and terminate the said licenses. The failure of the second party to exercise its said option in the case of any breach of conditions shall not operate as a waiver of its right so to cancel and terminate said licenses in case of any subsequent breach thereof.

In the event of the breach by the second party and/or the third party of any of the conditions above or hereinafter enumerated, upon which conditions the license or licenses from the fourth party to the second and third parties are to be granted, the fourth party may at its option to be exercised in writing, delivered personally or by registered mail to the second party and/or the the third party each at its last known address, cancel and terminate the said licenses. The failure of the fourth party to exercise its said option in the case of any breach of conditions shall not operate as a waiver of its right so to cancel and terminate said licenses in case of any subsequent breach thereof.

6. All licenses above provided for shall extend so far as applicable to any improvements in the field of viscose which either party granting the license may make or acquire and shall extend through the life of such patents or improvements thereon.

7. The fourth party shall be entitled to full information on the subject of viscose now or hereafter in the possession of the second and third parties applicable to the business of the fourth party and shall also be entitled to full knowledge of such research work on the subject of viscose as has been or may hereafter be carried on by the second and third parties which may be applicable to the business of the fourth party. The second and third parties will aid the fourth party in any and every way possible in the planning and erection of its plant and

in the production of its product.

IN WITNESS WHEREOF, the first party has hereunto set his hand and affixed his seal and the second and third parties have caused this instrument to be executed by their duly authorized officers on the day and year first above written.

/S/ Erwin O. Freund

DU PONT CELLOPHANE COMPANY, INC

By /S/ L. A. Yerkes

President.

ATTEST:

/S/ M. duPont Lee

SECRETARY

DU PONT RAYON COMPANY

BY /S/ L. A. Yerkes

PRESIDENT

ATTEST:

/S/ C.M. Albright

SECRETARY

The Visking Corporation above described as the fourth party having been organized and having duly adopted, ratified and confirmed the foregoing agreement, does hereby execute the same in token of its acceptance of the terms and conditions thereof.

Dated the 12th day of December, 1925

THE VISKING CORPORATION

By /S/ Guy B. Hazelgrove

PRESIDENT

ATTEST:

/S/ Cyrus W. Beale

SECRETARY

GOV'T EXHIBIT NO. 4090
Civil Action 1216

LICENSE AGREEMENT

WHEREAS, Du Pont Cellophane Company, Inc., a Delaware Corporation, of Buffalo, New York, is the owner of Letters Patent of the United States, as follows:

Cohoe and Fox,	1,070,776,	granted August 19, 1913 Sausage and Casing Therefor (see letter B M M to E O F dated 1/28/2)
Cohoe	1,158,400,	granted October 26, 1915 Casings for Sausages
Cohoe	1,163,740,	granted December 14, 1915 Apparatus and Process for Making Tubes; and

WHEREAS, Visking Corporation, a Virginia Corporation, having an office at Chicago, Illinois, is desirous of acquiring an exclusive license under said patents for the purposes hereinafter expressed, pursuant to an agreement between the parties hereto and other parties, dated October 20, 1925:

NOW, THEREFORE, be it known that Du Pont Cellophane Company, Inc., for One Dollar and other sufficient good and valuable consideration, receipt whereof is acknowledged, hereby grants unto said Visking Corporation, subject to the conditions stated in the above-mentioned agreement, the exclusive right and license, free from royalties, to employ and practice the inventions set forth in the above enumerated patents, throughout the world and during the life of said patents, in connection with the manufacture and sale of casings for any kind of sausage by whatever name known and/or artificial weasands, and for no other purposes, said DuPont Cellophane Company, Inc. reserving to itself the exclusive right to the use of said inventions for all other purposes.

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It is understood and agreed that the exclusive license herein granted shall extend so far as applicable to any improvements in the field of viscose which Du Pont Cellophane Company, Inc. may make or acquire and [redacted] extend through the life of any patents acquired, and [redacted] patents for any improvements thereon.

Said Du Pont Cellophane Company, Inc. further agrees to impart unto said Visking Corporation all information it possesses or may acquire, applicable to the business of said Visking Corporation, during the continuation of this license on the subject of viscose and/or relating to the manufacture thereof, and also to aid said Visking Corporation in the planning and erection of a plant and in the manufacture of its product.

This license shall continue for the life of the patents referred to as an exclusive license in and for the field granted, unless it shall be lawfully revoked by said Du Pont Cellophane Company, Inc. in accordance with the terms of the above-mentioned agreement; and should the license be revoked as an exclusive license, said Visking Corporation shall, nevertheless, retain a non-exclusive license in accordance with the provisions of the above-mentioned agreement.

This license is non-transferable and non-assignable. It is given and accepted pursuant and subject to the terms and conditions of the agreement of October 20, 1925, which agreement and the terms and conditions thereof

are made a part of this license as fully as if the same were repeated at length herein.

IN TESTIMONY WHEREOF, Du Pont Cellophane Company, Inc. has caused this instrument to be executed by its duly authorized officers this 31st day of December, 1925

DU PONT CELLOPHANE COMPANY, INC

BY /S/ L. A. Yerkes

PRESIDENT.

ATTEST:

M. du Pont Lee

SECRETARY

EXHIBIT NO. 4091.
[illegible] 1218

LICENSE AGREEMENT

WHEREAS, Visking Corporation, a corporation of Virginia, having an office at Chicago, Illinois, is the owner of the following patents and applications for patents, viz.:

PATENTS

Great Britain	213,931, Apr. 7, 1923	(Appln. Ser. No. 18,700 filed April 7, 1924)
Great Britain (DIVISIONAL)	226,211 April 7, 1923	(Appln. Ser. No. 29,723 filed Dec. 10, 1924)
France	585,755, Apr. 2, 1924	(Appln. Ser. No. 186,263, filed Apr. 2, 1924
Belgium	317,042 Apr. 4, 1924	(Appln. Ser. No. 24,007 filed Apr. 4, 1924
Australia	17,457, Apr. 24, 1924	(Appln. filed Apr. 24, 1924)
New Zealand	52,046, Apr. 14, 1924	(Appln. Ser. No. 52,046, filed Apr. 14, 1924)
Switzerland	112,001, Apr. 7, 1924	(Appln. Ser. No. 28,137 filed Apr. 7, 1924
Spain	89,032, Jan. 27, 1925	(Appln. Ser. No. 11,549, filed Apr. 5, 1924)
Spain (DIVISIONAL)	89,033, Jan. 14, 1925	(Appln. Ser. No. 11,550, filed Apr. 5, 1924
Portugal Pat.	13,639 Feb. 7, 1925	(Appln. Ser. No. 13,639, filed Apr. 3, 1924
Union of So. Africa	363, Apr. 16, 1924	(Appln. Ser. No. 363, filed Apr. 16, 1924).

APPLICATIONS

Germany	Ser.	No.	55832,	filed	April 2, 1924
Austria	"	"	1874	"	Mar. 31, 1924
Norway	"	"	30413	"	April 5, 1924
Sweden	"	"	1028	"	Mar. 28, 1924
Holland	"	"	26730	"	April 1, 1924
Denmark	"	"	805	"	April 5, 1924

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William F. Henderson U. S. Appln. 630,594, filed Apr. 7, 1923
" " " " " 712,640 " May 12, 1924
" " " Canadian" 285,846 " Mar. 15, 1924

AND, WHEREAS, Du Pont Cellophane Company, Inc., a Delaware corporation, of Buffalo, New York, and Du Pont Rayon Company, a Delaware Corporation, of Buffalo, New York, are desirous of acquiring a joint and several exclusive license to practice the inventions set forth in said patents and applications for the purposes hereinafter stated:

NOW, THEREFORE, be it known that for One Dollar and other sufficient good and valuable consideration, receipt whereof is acknowledged by Visking Corporation, said Visking Corporation hereby grants unto said Du Pont Cellophane Company, Inc. and Du Pont Rayon Company, jointly and severally, licenses exclusive as to all except said two named licensees, free from royalty, to practice the inventions set forth in said patents and applications and any improvements thereon which said Visking Corporation possesses, or may acquire, throughout the United States and the foreign countries mentioned, for the life of the patents and any further patents which may be granted, unless sooner terminated in accordance with the provisions of a certain agreement between the licensor, the licensees and Erwin Oscar Freund, dated October 20, 1925, for any and all purposes and uses, except the purposes and uses of the manufacture and sale of casings for any kind of sausage by whatever name known and/or artificial weasands, the exclusive rights for the excepted purposes and uses being reserved to said Visking Corporation.

The exclusive joint and several license herein granted shall extend to any and all inventions, improvements, discoveries and patents which Visking Corporation now owns or may acquire, pertaining to the subject of viscose and applicable to the purposes of Du Pont Cellophane Company, Inc., and Du Pont Rayon Company, or either of them, and said licensees shall be entitled to all of the knowledge and information required to be communicated to them by virtue of the above-mentioned agreement.

The exclusive license herein granted shall continue during the term of the patents referred to, unless sooner terminated in accordance with the provisions of the above-mentioned agreement, and in case of the termination of the exclusive license in accordance with said provisions, said Du Pont Cellophane Company, Inc. and said Du Pont Rayon Company shall each be entitled to a non-exclusive license in accordance with the terms and provisions of the above-mentioned agreement.

This license is non-transferable and non-assignable. It is given and accepted pursuant and subject to the terms and conditions of the agreement of October 20th, 1925, which agreement and the terms and conditions thereof are made a part of this license as fully as if the same were repeated at length herein.

IN TESTIMONY WHEREOF, Visking Corporation has caused this instrument to be executed by its duly authorized officers this 31st day of December, 1925.

VISKING CORPORATION

BY /S/ Guy B. Hazelgrove
President

ATTEST:
Cyrus W. Beale /S/
Secretary

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DU PONT RAYON COMPANY

New York, N. Y.
July 3, 1935.

TO: EXECUTIVE COMMITTEE,
E. I. duPONT de NEMOURS & COMPANY.

GOV'T EXHIBIT NO. 4092
Civil Action 1216

FROM: L. A. YERKES, PRESIDENT.

TECHNICAL AGREEMENT BETWEEN THE VISKING CORPORATION AND DU PONT CELLOPHANE COMPANY, INC. - DU PONT RAYON COMPANY:

The above was entered into on October 20, 1925, its genesis being the Cohoe patents then owned by Du Pont Cellophane Company, Inc., the last of which patents expired in 1932.

At the time the agreement was made duPont was not the sole owner of the Rayon and Cellophane Companies. Upon duPont's acquisition of the minority interest therein, the then newly formed Rayon Company and Cellophane Company executed papers continuing the agreement with Visking.

Du Pont Securities Company took over on November 30, 1931 the stock of the Visking Corporation, which theretofore had been held by Du Pont Cellophane Company, Inc.

In December 1933 we had the Legal Department review the agreement, as the Development Department was desirous of ascertaining whether the Visking Corporation had a "nuisance" value from the standpoint of cellulose film. The opinion of the Legal Department was written by Mr. T. R. Manley and is quoted below:

"The future rights and obligations of the several parties to the above agreement dated October 20, 1925, as disclosed by said agreement, are as follows:

"INFORMATION

"1. Freund is obligated to the Visking Corporation to transfer to it 'all rights to the research work, trade secrets on the subject of viscose already developed, or which may be developed in the future on the subject of viscose which the first party (Freund) has caused and may cause to be conducted at Mellon Institute of the University of Pittsburgh or elsewhere'. (Par. 3)

"2. Cellophane and Rayon Companies are obligated to disclose to Visking 'full information on the subject of viscose now or hereafter in the possession of the second (Cellophane) and third (Rayon) parties applicable to the business of the fourth party (Visking) and .... full knowledge of such research work on the subject of viscose as has been or may hereafter be carried on by the second and third parties which may be applicable to the business of the fourth party.' (Par.7)

"3. Visking is obligated to disclose to Rayon and Cellophane Companies 'full information on the subject of viscose now or hereafter in the possession of the first party (Freuhd) and the fourth party (Visking) applicable to

7/10/35 - L. A. Yerkes refers to Development Dept. for consideration and recommendation.

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the business of the second and third parties and to the full knowledge of the research work which has been or may hereafter be carried on, on the subject of viscose; and****to furnish all such information and to consent to the technical experts of the second and third parties being received at the Mellon Institute of the University of Pittsburgh or elsewhere where said research is being carried on o. the results thereof are available****'. (Par. 5(d))

"IMPROVEMENTS

"1. In addition to the patents enumerated in the agreement, Freund is obligated to transfer to Visking Corporation 'any new or additional patents or applications for improvements upon any of the above mentioned patents or applications and/or any other patents or applications on the subject of viscose.' (Par. 3)

"2. Cellophane and Rayon Companies are obligated to grant to Visking exclusive licenses 'in connection with the manufacture and sale of casings for any kind of sausage by whatever name known and/or artificial weasands' under any foreign patents they may acquire corresponding with the American patents owned by Cellophane enumerated in the agreement. (Par. 5(c))

"3. Cellophane and Rayon Companies are obligated to grant to Visking and Visking is obligated to grant to Cellophane and Rayon exclusive licenses 'as far as applicable to any improvements in the field of viscose which either party granting the license may make or acquire****'. (Par. 6)

"It is to be here noted that nowhere in the agreement is there any provision in respect to licenses under patents owned by third parties, nor is there any covenant by the parties not to compete with each other in their respective divisions of the viscose field.

"While there is no express provision in the agreement which limits the business of the Visking Corporation to casings and weasands or excludes Cellophane and Rayon Companies from this field except as follows from the exclusive licenses therein provided for, it is my opinion that the spirit of the agreement was that Visking should confine its activities to the casing and weasand field and that Cellophane and Rayon Companies should have exclusive rights in the viscose field, exclusive of casings and weasands. The obligation to disclose fully to each other information and research data is unlimited, and, to me, it is inconceivable that the parties ever intended that such information should be used to compete with the party furnishing the information.

"However, in so far as the express language of the agreement is concerned, Cellophane and Rayon Companies are free to engage in the casings and weasands field, provided they use a process which is open to the world, or provided they operate under a license from a third party. Visking would also be entitled to engage in the general viscose field under the same conditions. I believe this interpretation, while a literal one, was not intended and should not be availed of

by any party to the agreement. Of course, due to the exclusive nature of the licenses, no party to the agreement is free to engage in the other's field under inventions owned or developed by any party to the agreement. It is to be noted that the obligation of each party to the other in respect to improvements is limited to those which any party 'may make or acquire'.

"The ambiguous and indefinite language of this agreement does not permit conclusions free of doubt. The opinions herein expressed are the result of interpretation of phraseology which may or may not have expressed the intent of the parties.

"The contract does not provide any means of final termination or cancellation. Since the contract calls for full exchange of information and research data, as well as rights under improvements, it is my opinion that this agreement falls in the category of a contract which necessarily involves the imposing of trust and confidence of each party in the other and of mutual satisfaction with each other's conduct. It is the general view that a contract of indefinite duration which embodies such elements can be terminated by either party upon reasonable notice to the other."

During the period of this agreement--which it will be noted is confined to the field of viscose--changes and developments have occurred that prompt the question whether a new form of agreement would be mutually preferable.

The early stages were concerned primarily with developing technique and personnel to produce a plain viscose casing. After success in that objective, the printed casing was developed and now accounts for probably 80% of Visking's total business. DuPont made some contribution here, such as Daktose for anchoring. The anchorage of the ink to the casings is not entirely satisfactory. It is thought that the Experimental Station might make a contribution here, but Visking gets no encouragement to pay a visit there because of the limitations of the present agreement.

Visking has been interested in the development of a protein base for the manufacture of casings and have had two research men working on the problem. When the question was broached about a swopping of ideas on that problem, the nearest we could get was a courteous invitation to have a Visking representative call at the Station, but the exchange of ideas would be abstract--in other words the field of proteins is not covered in the agreement and, besides, the agreement is not one to which duPont is a direct party.

While naturally confined to matters pertaining to viscose we can assert that Visking has never placed any obstacles in our way when some of our men have wished to conduct an experiment that could be more readily and economically performed at Chicago than at Buffalo and where the objective of the experiment was more in our interest than in theirs.

With exchanging visits between our men and Visking's men, it is becoming difficult and not infrequently embarrassing to differentiate

as between a development of interest that is wholly within the Rayon and Cellophane Companies and those not colored by some contribution of the Experimental Station.

Our association with Visking has been extremely profitable, not only from the substantial dividends received, but without Visking machines for our cellulose bands business we would not be occupying our present preeminent position in that industry.

We feel quite confident that Visking is satisfied to keep within its field of sausage casings, but the future may develop a different base than viscose. Du Pont may or may not envisage going into the sausage casing business, but in view of this association with Visking it would appear unlikely except in conjunction with Visking.

Our suggestion is that your Committee authorize the making of an agreement, the parties thereto to be Du Pont Cellophane Company, Inc., Du Pont Rayon Company, E. I. duPont de Nemours & Company (Central Chemical Department), and the Visking Corporation, under which there would be a broader and freer exchange to the end that there will be co-operation that will develop the sausage casing business in all its aspects for account of Visking and all other offshoots of such co-operation to belong to duPont. It is understood that draft of such an agreement would be submitted to you for approval prior to execution.

L. A. Yerkes
PRESIDENT.

GOVT EXHIBIT NO. 4129
Civil Action 124-6

MEMORANDUM OF AGREEMENT made as of this day of January 25, 1945, ~~1945~~, between THE VISKING CORPORATION, a corporation organized under the laws of the State of Virginia, having a place of business in Chicago, Illinois, party of the first part (hereinafter called VISKING) and E. I. DU PONT DE NEMOURS AND COMPANY, a corporation organized under the laws of the State of Delaware, having a place of business at Wilmington, Delaware, party of the second part (hereinafter called DU PONT);

W I T N E S S E T H:

WHEREAS, on the 20th day of October, 1925, Erwin O. Freund, Du Pont Rayon Company, and Du Pont Cellophane Company, Inc., entered into an agreement on behalf of themselves and VISKING to be formed; and

WHEREAS, on the 12th day of December, 1925, VISKING having been organized, duly adopted, ratified and confirmed the foregoing agreement; and

WHEREAS, VISKING, on the 31st day of December, 1925, entered into an agreement with Du Pont Cellophane Company, Inc. and Du Pont Rayon Company, which agreement granted them a license to practice the inventions of certain patents set forth in said agreement; and

WHEREAS, the agreements of October 20, 1925 and December 31, 1925 were assigned by Du Pont Cellophane Company, Inc. and Du Pont Rayon Company to E.I. du Pont de Nemours and Company with the knowledge and consent of VISKING; and

WHEREAS, the parties hereto are desirous of cancelling said agreements.

NOW, THEREFORE, in consideration of the premises and other good and valuable considerations each by the other in hand paid, receipt whereof is hereby acknowledged, and in consideration of the covenants and conditions hereinafter set forth, the parties hereto agree as follows:

1. The agreements of October 20, 1925 and December 31, 1925 are hereby cancelled as of the date first above written, and each party releases the other from any claim which it may have for any loss, cost or damage because of said agreements, said cancellation, however, being subject to the following conditions:

(a) DU PONT, for itself and its subsidiaries, present and future, shall continue to enjoy, non-exclusively and without payment of any royalty, the right to practice the inventions and to use the information provided for in said agreements and obtained from VISKING, which inventions and information DU PONT or its subsidiaries were commercially using at the date of this agreement.

(b) VISKING, for itself and its subsidiaries, present and future, shall continue to enjoy, non-exclusively and without payment of any royalty, the right to practice the inventions and to use the information provided for in said agreements and obtained from DU PONT, which inventions and information VISKING or its subsidiaries were commercially using the date of this agreement.

(c) Said non-exclusive rights provided for in Articles 1(a) and 1(b) above, shall not be limited to the specific form of said commercial use at the date of this agreement, but may be exercised to the extent originally provided for in said agreements of October 20, 1925 and December 31, 1925.

(d) For purposes of this agreement the term "subsidiary" shall signify a corporation, over 50% of the voting stock of which is owned by either party.

IN WITNESS WHEREOF the parties hereto have caused this agreement to be executed by their duly authorized officers as of the day and year first above written.

THE VISKING CORPORATION

Attest: Howard R Meeder
Secretary.

By Erwin O. Freund
President.

E. I. DU PONT DE NEMOURS AND COMPANY

Attest: T. F. Kaskob
Secretary.

By [illegible]
Ass't. General Manager,
RAYON DEPARTMENT

Approved
Department
Haskell
Director

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EXHIBIT NO. 4381
Civil Action 1216

Copy: Mr. W. S. Carpenter

E. I. DU PONT DE NEMOURS & COMPANY
WILMINGTON, DELAWARE
EXECUTIVE OFFICES

December 8, 1931.

L A Y

Mr. L. A. Yerkes, President,
Du Pont Cellophane Company,
Empire State Building,
New York City, New York.

Dear Len:

Yesterday I called on Mr. Jesse Ricks of the Union Carbide & Carbon Corporation, and had about an hour's talk with him and Mr. Barrett, regarding their proposed entry into the cellophane field.

They stated that they have purchased from the inventor, who was formerly connected with the Wisconsin State University at Madison, rights to his process for the manufacture of a transparent wrapping material similar to cellophane.

The contract gives them the option of investigating for a year and then, if satisfactory, making some form of additional payment. I gather that even this is not the final payment, and they have further time for investigation.

The process is said to be new, different from other known processes and covered by a patent application. The process is said to be cheaper than other processes and produces an equally good article, including being moisture proof.

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So far, the work has been entirely laboratory work; and the sample given Mr. Richter was from the laboratory. They have not built any plant and do not intend to build any plant until they have made a thorough investigation, and it was intimated that we would hear further from them before they would undertake to build a plant.

They assured me repeatedly they did not wish to rush into anything, most of all a competitive situation with du Pont. Their whole tone was most agreeable and, put briefly, their position was that they thought they had an opportunity to acquire something good and had simply taken the steps to make a careful investigation.

In the course of the conversation, various efforts at co-operation between Carbide and du Pont were referred to, and in every case assurances of their desire to work together, given.

I could not take exception to their stated position in any respect, but explained to them thoroughly our position with respect to patent rights, competition and prices, stating that we believed we have a moisture-proof product, adequately covered by patents, and that with or without competition, we intended to keep the price of the product reasonable as compared with manufacturing costs.

Yours very truly,

LduP/MD

PRESIDENT

AT 7077

GOV'T EXHIBIT NO. 5001

Civiliaction 1216

December 10 1934
December 10, 1934.

Approved by A.M.M.

Mr. J.E. Hatt, General Manager,
Cellophane Department,
NEW YORK OFFICE.

COMPETITIVE POSITION OF CELLOPHANE
IN SALE OF CELLULOSE FILM - P.T.

I think the attached report is now in suitable form.

On Page 12 it is pointed out that the total net gains made by competition have largely been made in the converting end of the business. I take this to mean that Sylvania's converters are under-selling Dobeckmun, Shellmar, and others. I should like to be able to report to the Board that Dobeckmun and Shellmar will have to meet competitive prices. I have been under the impression in the past that through their association they have attempted to keep prices higher than Sylvania's converters and that they have for this reason lost business.

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PRESIDENT.

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DU PONT CELLOPHANE COMPANY, INC.

Manufacturers of Cellulose Film

35° FIFTH AVENUE NEW YORK, N.Y.

December 18, 1934.

TO: BOARD OF DIRECTORS,
DU PONT CELLOPHANE COMPANY, INC.

FROM: L. A. YERKES, PRESIDENT.

COMPETITIVE POSITION OF "CELLOPHANE" IN SALE OF CELLULOSE FILM:

At our Board meeting, held on October 4, 1934, we reviewed a report covering an analysis of our apparent loss in competitive position of moistureproof "Cellophane" since granting a license in April 1933 to the Sylvania Industrial Corporation under our patents applying to moistureproof cellulose film. It was then unanimously agreed that it would be interesting to see the results of a similar study with respect to the competitive position of regular "Cellophane."

We are accordingly sending you herewith copy of report covering the relation of our regular "Cellophane" to the sales of plain sheeting by Sylvania.

L. A. Yerkes,
PRESIDENT.

1.
enclosure

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Cellophane TRADE MARK

"CELLOPHANE" IS THE REGISTERED TRADE MARK OF THE DU PONT CELLOPHANE COMPANY, INC.
TAXES WHICH ARE OR MAY BE IMPOSED UPON THE SALE OR PRODUCTION OF OUR PRODUCTS SHALL BE FOR THE ACCOUNT OF THE BUYER.

COMPETITIVE POSITION

on

PLAIN SHEETING SALES

COMPETITIVE POSITION ON PLAIN SHEETING SALES

Distribution of plain sheeting sales as between our competitor, the Sylvania Industrial Corporation, and ourselves remained relatively steady during the 21-months period ending September 30, 1934 with a slight improvement noted in the competitor's position beginning with 1934.

In considering the volume for the first nine months of 1934, Sylvania's estimated sales of 2,356,300 pounds for that period represented 20.6% of the combined plain tonnage, compared to Du Pont's total of 9,122,500 pounds or 79.4%. In the corresponding period of 1933 the competitor is credited with sales of 2,072,400 pounds or 19.6% of the total volume, during which period our own sales were 8,530,700 pounds or 80.4%. So far as the ratio of their volume to our own is concerned it may be said very little change has taken place in these comparative periods.

The improvement in the competitor's position has occurred principally in the second and third quarters of this year. It will be noted Sylvania's percentage of the combined volume increased from 19% in the first quarter to 21.2% and 21.6% respectively, in the subsequent three months periods.

The following computations cover the figures discussed above. We believe estimates given for Sylvania closely approximate the competitor's actual sales volume on plain sheeting.

SALES OF PLAIN SHEETING ONLY

	Du Pont Pounds	Du Pont %	Sylvania (Est.) Pounds	Sylvania (Est.) %	Total Pounds
1st Quar.1933	2,720,200	80.0	681,500	20.0	3,401,700
2nd Quar.1933	2,613,300	79.2	687,700	20.8	3,301,000
1st 6 Mos.	5,333,500	79.6	1,369,200	20.4	6,702,700
3rd Quar.1933	3,197,200	82.0	703,200	18.0	3,900,400
4th Quar.1933	3,062,800	81.9	678,000	18.1	3,740,800
2nd 6 Mos.	6,260,000	81.9	1,381,200	18.1	7,641,200
TOTAL 1933	11,593,500	80.8	2,750,400	19.2	14,343,900
1st Quar.1934	3,417,800	81.0	799,900	19.0	4,217,700
2nd Quar.1934	2,681,300	78.8	723,500	21.2	3,404,800
1st 6 Mos.	6,099,100	80.0	1,523,400	20.0	7,622,500
3rd Quar.1934	3,023,400	78.4	832,900	21.6	3,856,300
9 Mos.Total	9,122,500	79.4	2,356,300	20.6	11,478,300

It will be noted that Du Pont secured the highest percentage of the combined volume or 82% in the third quarter of 1933. Had our sales continued in the same ratio, we would have sold 3,458,500 pounds instead of 3,417,800 pounds in the first quarter of 1934, a difference of 40,700 pounds; 2,791,900 pounds instead of 2,681,300 pounds in the second quarter, a difference of 110,600 pounds; and 3,162,100 pounds for the third quarter instead of 3,023,400 pounds, a difference of 138,700 pounds.

Therefore, the improvement in the competitor's position in the past several months appears to be the result of a transition of business which at its highest was 138,700 pounds in the third quarter. However, other factors which we will detail

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later have also had a bearing on this relative change.

It must be considered that to maintain the ratio of 82%, it is necessary for Du Pont to add 4 pounds of business to every one pound of new business secured by the competitor. Continuing this line of reasoning, for every pound of business lost by us to the competitor, we are required to secure an additional 5 pounds elsewhere in order to maintain our position. In this connection, we had the business of the U. S. Envelope Company, but in June of this year it was diverted to Sylvania on the basis of reciprocity. As a result, it is estimated we lost 30,000 pounds in June and 100,000 pounds in the third quarter from this account. To offset this loss, therefore, we would be required to secure 150,000 pounds and 500,000 pounds of new business or else to take from the competitor's business a volume equal to our loss. We point this out to show the loss of only one fair sized account is sufficient to noticeably increase Sylvania's position.

Our sales of plain sheeting in the first quarter 1934 of 3,417,800 pounds declined to 2,681,300 pounds in the subsequent three months period — a drop of 636,500 pounds (22.8%) but increased to 3,023,400 pounds in the third quarter — a gain of 12.7% over the second quarter. Comparative Sylvania volume shows a decline of 76,400 pounds (10.5%) in the second quarter and an increase of 109,400 pounds or 15.1% in the third quarter over the second quarter.

There follows a detailed analysis of the foregoing

changes showing transitions which have taken place in the consuming outlets and other conditions which have affected our sales during the second and third quarters 1934.

In comparing Du Pont second quarter 1934 sales vs first quarter volume, decreases in the amount of 775,500 pounds were noted in the following major outlets which are tabulated below. We have shown third quarter sales figures from which improvement will be noted. Comparative figures for Sylvania are also given.

DU PONT SALES

	1st Qr. 1934	2nd Qr. 1934	Decrease	3rd Qr. 1934	Inc. or Dec. vs 2nd Qr.
Candy	191,200#	105,600#	85,600#	168,800#	+ 63,200#
Mill. Braid	60,200	6,100	54,100	23,400	+ 17,300
Paper Prods.	190,200	156,600	33,600	88,500	- 68,100
Unclassified	241,100	117,300	123,800	102,300	- 15,000
Textiles	151,700	112,900	38,800	134,300	+ 21,400
Converters	1,314,900	1,042,300	272,600	1,122,600	+ 80,300
Agents	624,100	457,100	167,000	624,500	+167,400
	2,773,400	1,997,900	775,500	2,264,400	+266,500

SYLVANIA SALES

	1st Qr. 1934	2nd Qr. 1934	Incr. or Decrease	3rd Qr. 1934	Inc. or Dec. vs 2nd Qr.
Candy	78,000#	84,000#	+ 6,000#	78,000#	- 6,000#
Mill. Braid	20,000	5,000	- 15,000	5,000	----
Paper Prods.	23,000	24,100	+ 1,100	27,900	+ 3,800
Unclassified	48,000	35,000	- 13,000	48,000	+13,000
Textiles	67,300	48,000	- 19,300	60,000	+12,000
Converters	260,000	288,000	+ 28,000	352,000	+64,000
Agents	148,600	120,400	- 28,200	149,000	+28,600
	644,900#	604,500#	- 40,400#	719,900#	+115,400#

INDUSTRY DETAIL

Candy

Du Pont sales to the candy industry declined 85,600 pounds during the second quarter. First quarter purchases by this industry are ordinarily higher than in the subsequent quarter because of pre-Easter buying and a tendency for candy consumption to drop during the summer season. Review of the individual accounts indicates the seasonal influence was responsible for 45,000 pounds of the total decrease. This factor also influenced the competitor's sales to the industry.

It is calculated 22,000 pounds were lost to competition in this period. Of this, 14,100 pounds was a result of our inability to make prompt deliveries on second grade material. The business of one account totalling 2,700 pounds was temporarily lost to competition after they encountered difficulties in running our material on their machines.

Curtailment in the use of Cellophane in low priced candy items due to increased manufacturing costs was responsible for a decline of 15,000 pounds.

Sales of 168,800 pounds in the third quarter are considered normal.

Millinery Braid

"Cellophane" used in the manufacture of ladies' hats is seasonal and is dependent entirely on changing styles. No competition is involved in the reduction in second quarter sales of 54,100 pounds.

Paper Products

First quarter sales of 191,200 pounds were the highest

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on record. The industry is seasonal in nature, with the greatest production during the first part of the year. In addition, reports from various sections of the country indicate large inventories accumulated in the first quarter both by the manufacturers and syndicate stores were slow to move. While this factor is partially responsible for a decrease in sales of 33,600 pounds in the second quarter, it is further reflected in abnormally low third quarter volume. Beach & Arthur, for instance, purchased 39,100 pounds in the first quarter, an amount far in excess of their requirements.

Sylvania is credited with securing 11,100 pounds from us during the second quarter on the basis of prompt shipments of seconds. Of the total amount lost to competition, C. A. Reed Company is responsible for 8,000 pounds. This company continues to give us their roll stock business, but in the second quarter of 1934 they started to place their second grade requirements with the competitor, when we could not make prompt shipment on this grade of material.

Current conditions in this highly competitive industry, particularly on facial tissue, are not encouraging. With the prevailing low prices, the cost of Cellophane looms larger to them and in the interest of production economies they are apt to minimize its merchandising value. The Kimberly Clark Company, the largest manufacturer in the field, recently have added a so-called "economy" package to their line of facial tissue which is in direct competition with their Cellophane wrapped package. As a consequence, there has been a reduction in their Cellophane

requirements which is reflected in third quarter sales to [redacted] which were 25,000 pounds lower than the preceding quarter.

Textiles

Unsettled conditions in this industry [redacted] for the decrease of 36,800 pounds when comparing [redacted] and second quarters of 1934. Improvement, however, [redacted] the third quarter when our sales increased 21,400 pounds.

Falling off in direct purchases by the shirt [redacted] the industry is partially responsible for the unfavorable [redacted] in the second quarter. Also, there has been a growing use of printed Cellophane wrappers on shirts in place of unprinted sheets. This has meant business has been diverted from ourselves to the printer.

Also, in the past several months there has been noted an increasing tendency on the part of department [redacted] syndicate store buyers to demand lower prices on cheaper grade shirts without the transparent wrapper.

Unclassified

First quarter sales of 241,100 pounds to accounts included in the miscellaneous group exceeded all previous quarterly periods, which was largely due to the adoption of Cellophane on clothespins by the Berst-Forster-Dixfield Company. 126,000 pounds were used for this purpose in the first quarter, which business was not duplicated in the subsequent quarters owing to the seasonal production of clothespins.

From the foregoing, it will be noted that insofar as

the direct consuming industries are concerned, relatively small gains have been made by the competitor on plain sheeting. Cancellation and decrease reports and detailed analysis of the individual accounts with few exceptions as noted above do not reveal any large units of plain business has been diverted to the competitor during the past 21 months period.

Converter Sales

Turning to converter sales, our information as to the volume and distribution of competitive business through indirect suppliers is admittedly limited, nor is it possible to secure accurate data on their operations in this category. However, data secured through converters and agents using Du Pont material exclusively, coupled with the information secured through our own field force gives us a reasonable basis for estimating the competitor's probable volume through these outlets.

Du Pont tonnage sold through converters in the first three months period amounted to 1,314,900 pounds as compared with 1,042,300 pounds in the second quarter — a decline of 272,600 pounds which is the largest single decrease in any classification. Improvement was shown in the third quarter when our sales increased to 1,122,600 pounds or 80,300 pounds above the second quarter total.

As mentioned previously, competition has secured the business of the U. S. Envelope Company. This company formerly purchased plain sheeting from Du Pont at the rate of 30,000 pounds per month, but were lost to Sylvania in June due to our

not giving them preference in our purchase of paper [illegible]. With this one account alone we can credit Sylvania with having gained 90,000-100,000 pounds in the third quarter.

Our sales to the Dobeckmun Company decreased 137,870 pounds in the second quarter. This converter uses Du Pont material exclusively, and we are assured their lower purchases are attributable to their own lessened sales volume. In the third quarter, sales to this account increased 30,000 pounds over the second quarter total.

With Union Bag and Paper Company we have a decline of 84,910 pounds in the second quarter and a gain of 29,500 pounds in the third quarter. Sales to the Continental Bag & Paper Company decreased 25,100 pounds in the second quarter and increased 36,000 pounds in the third quarter over the second. Both of these converters have continuously used Du Pont and Sylvania material in the manufacture of transparent bags.

In the case of Union, it is reported the distribution of their requirements has been Du Pont 75% and Sylvania 25%. It is further reported this ratio has continued to exist despite the reduction in their volume.

With the Continental Bag & Paper Company, although their purchases for the first nine months of this year are 76,000 pounds lower than in the comparable period last year and their second quarter 1934 sales are below the first quarter period by 25,100 pounds, it is reported we are receiving the same percentage of their business (85%) as formerly, which is distributed according to ratio of Du Pont's and Sylvania's purchases of pulp

from their parent company.

In reviewing this situation with the bag manufacturers, we are told these decreases are partially the result of seasonal declines in their sales of bags for wrapping dried vegetables when fresh vegetables come into season. They report also there have been lower takings by the chain syndicate stores viz: Woolworth, Safeway Stores, Kroger, etc., where the enthusiasm for candies and dried vegetables has lessened after the initial promotion of these products in transparent bags. Also with Union and Continental, in an endeavor to get their bags into the independent retail and smaller chain grocery stores, they established a policy in the latter part of 1932 to distribute through paper jobbers who are in contact with the retail outlets. Through these connections they were able to progressively increase the sales of bags until recently when the initial enthusiasm likewise lessened.

It is interesting to note, however, that orders from both the syndicate stores and paper jobbers have recently picked up, and the converters generally report a more encouraging outlook.

In this period the Oneida Paper & Bag Company and the Equitable Paper & Bag Company, fabricating bags of Sylphrap, have made inroads in Dobeckmun's, Union's and Continental's bag business by underselling these latter converters. More intensive selling effort has been noted on the competitive bag manufacturers' part during the past several months.

4421 3500

We can credit Oneida with an annual volume of approximately 500,000 pounds and Equitable with 200,000 pounds.

Sales to Agents

Volume to our distributors declined 167,000 pounds in the second quarter. Third quarter sales improved to the extent they equalled first quarter sales. It is our belief the more optimistic business sentiment prevailing in the first quarter caused our agents to purchase in excess of the actual requirements of their customers. Then too, the unrestricted policy of the competitor to distribute through paper jobbers in all sections of the country has enabled them to secure business with small users of transparent sheeting where the local competitive paper jobber already has established himself with customers on other paper supplies, and can make more prompt deliveries on small quantities than can be made by our agents.

A quarterly gain of 11,000 pounds is credited to the competitor in this classification.

** *** **

Against the total difference of 736,500 pounds in our plain sheeting sales during the second quarter, the competitor is calculated to have made a gain of not over 100,000 pounds of business formerly enjoyed by us. Of this, it is estimated 55,000 pounds were secured through converter connections. Concerning the third quarter, the continued improvement in the competitor's position is the result of their receiving the full benefit of their securing the business of the U. S. Envelope Company. It is evident, therefore, our lower volume in the

second and third quarters, which followed a peak volume in the first quarter of 1934, was largely caused by seasonal fluctuations and adverse conditions in the industries we are serving. Distributing through the same outlets, our competitor's business was likewise affected by these unfavorable conditions. However, the gains they have secured in the converter end of the business has enabled them to show a slight improvement in their position on plain sheeting.

The detailed summary attached showing our sales and estimates of the competitor's plain sheeting to the individual industries will provide a current picture of the comparative progress made by the two concerns to date this year.

Distribution Between Plain and Moistureproof Sales

As a matter of interest, we have noted below the percentage distribution between Sylvania's plain and moistureproof sheeting compared to our own. This tabulation shows a substantially larger proportion of our business in the moistureproof classification. This, of course, is because we have practically all of the business in the cigarette industry, and Sylvania has no comparable unit of business. However, by deducting our sales to the cigarette industry from our moistureproof total, it is found Sylvania's ratio as between plain and moistureproof business closely approximated Du Pont's distribution in 1933. This close correlation may be regarded as normal, since the competitor is selling the same outlets we are.

Comparative percentages follow:

PLAIN TRANSPARENT

	Du Pont Includes Cigarettes in M. I.	Du Pont Less Cigarettes in M. I.	Sylvania
1st Qr. 1933	40	52	46
2nd " 1933	22	43	45
3rd " 1933	33	44	44
4th " 1933	38	46	45
1st Qr. 1934	37	47	40
2nd " 1934	28	36	32
3rd " 1934	29	37	40

MOISTUREPROOF

1st Qr. 1933	60	48	54
2nd " 1933	78	57	55
3rd " 1933	67	56	56
4th " 1933	62	54	55
1st Qr. 1934	63	53	60
2nd " 1934	72	64	68
3rd " 1934	71	63	60

Comparing the distribution in 1934, however, it is evident these ratios have not been as constant as previously. Sylvania's marked gains in the baking industry in the early months of this year when they increased their moistureproof business at a greater rate than did Du Pont was the principal cause of this change. Judging from their reported sales of moistureproof material, however, their gains with this type of stock have not been sustained in the third quarter of 1934 and therefore their ratio of plain business to their total volume is now closer to the previously established proportions.

COMPARATIVE SALES BY DIVISION

DU PONT'S P. T. SALES	9 MOS. ENDING 9/30/54	9 MOS. ENDING 9/30/53	INCR. OR DECREASE
	DOLLARS	DOLLARS	DOLLARS
Candy	465,775	402,385	+ 63,390
Baked Goods	293,287	234,763	+ 58,524
Meat Products	497,327	382,005	+ 115,322
Food Products	395,653	287,405	+ 108,248
Textiles	455,775	496,628	+ 42,847
Drugs, Perfumes, Soap	192,238	169,822	+ 22,416
Paper Products	435,671	313,079	+ 122,592
Miscellaneous Products	630,456	455,546	+ 174,910
Industrial Uses and Millinery Braid	317,524	318,234	- 710
Converters	3,480,096	3,772,177	- 292,081
Agents	1,958,712	1,692,699	+ 266,013
Totals	9,122,514	8,530,703	+ 591,811

SYLVANIA'S P. T. SALES

Candy	240,000	200,000	+ 40,000
Baked Goods	120,000	105,000	+ 15,000
Meat Products	190,000	175,000	+ 15,000
Food Products	54,000	45,000	+ 9,000
Textiles	175,300	173,000	+ 2,300
Drugs, Perfumes, Soap	23,000	16,000	+ 7,000
Paper Products	75,000	65,000	+ 10,000
Miscellaneous Products	131,000	122,400	+ 8,600
Industrial Uses and Millinery Braid	30,000	30,000	---
Converters	900,000	761,000	+ 139,000
Agents	418,000	380,000	+ 38,000
Totals	2,356,300	2,072,400	+ 283,900

GOVT EXHIBIT NO 5034
Civil Action 1216

INDEX

Cellophane

1. Definition of Converted Material.
2. Letter dated November 29, 1946 to accounts re cancellation of sales agreements and quantity discounts where applicable.
3. Letter dated December 4, 1946 to managers of sales offices explaining discontinuance of quantity discounts.
4. Letter dated December 4, 1946 to all accounts not having sales agreements advising that effective January 1, 1947 orders will be shipped subject to prices and terms then in effect.
5. Letter dated December 10, 1946 to Zellerbach Paper Company establishing distributor's discount of 7½% and explaining similar converter discount.
6. Letter dated December 13, 1946 to all fabricators defining the 7½% discount on material purchased for conversion.
7. Letter dated December 13, 1946 to all converters and window box manufacturers defining the 7½% discount on material purchased for conversion and requesting converters' identification of items not classed as converted material.
8. Price List dated January 1, 1947

"Cel-O-Seal"

1. Letter dated November 29, 1946 addressed to all customers having quantity discount agreements.
2. Identical letters dated November 29, 1946 to Armstrong Cork Co. and I. F. Schnier Co.

Dup 1234

Du Pont Cellophane (first class material only) purchased and used for conversion is subject to a discount of 7-1/2%. Converted material is defined as follows:

Cellophane which is processed and subsequently resold to others in the form of a primary packaging material, container or integral portion of a container.

Processing includes printing, embossing, laminating, cutting to size, bag making, coating, fabricating into windows or liners for cartons, wrappers or bags, rewinding into rolls of less than our minimum standard O.D. for resale; also similar preparation for packaging uses competitive to the foregoing, if and when developed.

Tapes, ribbons, cords, garment bags, covers, bon bon cups, decorative novelties and other fabricated items are not used as primary packaging materials, containers or integral portions of containers and thus do not qualify for a discount.

Dup 1234a

E. I. DU PONT DE NEMOURS & COMPANY (INC.)

CELLOPHANE DIVISION

DU PONT Cellophane

WILMINGTON 98, DELAWARE
November 29, 1946

Due to present conditions, we find it necessary to hereby notify you that, as of December 31st, 1946, all agreements covering the sale of Du Pont Cellophane, including that now in effect between your Company and ours, shall be cancelled and terminated. Effective January 1st, 1947, there will be no quantity discounts on Du Pont Cellophane.

Orders now in our hands or placed with us prior to December 31st, 1946 that are unshipped in whole or in part on that date, will be subject to such prices and terms as are in effect on date of shipment.

We wish to take this opportunity of expressing our appreciation of our past relationship and our hope that it will continue to be mutually satisfactory and profitable.

Very truly yours,

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CFB:TR

DUPONT

BETTER THINGS for BETTER LIVING THROUGH CHEMISTRY

cc: T. L. Hines - A. Kunzman
J. E. Dean
W. J. Harte
E. C. Iske
I. B. Steele
W. G. Hunter
O. A. Provost

December 4, 1946.

TO: H. C. BROEMS, CHICAGO
V. C. CLARK, PHILADELPHIA
R. J. CROWLEY, NEW YORK
C. B. ESTABROOK, BOSTON
W. C. LOCK, SAN FRANCISCO
R. E. SIDWELL, ATLANTA
M. H. WHEAT, KANSAS CITY
E. M. WALLACE, CHICAGO
G. H. ANDREWS, NEW YORK

FROM: C. F. BROWN

DISCONTINUANCE OF QUANTITY DISCOUNTS

Confirming our recent verbal advice, we have for some time been conferring with our Legal Department regarding our price and discount structure which now can be revised, if desired, without conflict with OPA regulations.

After consultation with outside counsel and an expert accountant formerly with the Federal Trade Commission, the Legal Department has advised us to discontinue all quantity discounts.

Consequently the attached letter, dated November 29th, 1946, was mailed to all accounts having Sales Agreements with us in which quantity discounts are in effect, discontinuing and terminating them as of December 31st, 1946.

In event your salesmen and customers inquire as to the reasons for this action, we suggest the following statement as a concise and proper explanation:

"Following the termination of OPA, we have carefully reviewed our price and discount structure with our Legal Department. On the basis of changed conditions and current interpretations of the Robinson-Patman Act, our legal Department has recommended that all quantity discounts be discontinued."

For your information, all converter and fabricator agreements have also been cancelled and terminated as of December 31st, 1946.

CFB:JL

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GOV'T EXHIBIT NO. 5046
Civil Action 1849

E. I. DU PONT DE NEMOURS & COMPANY (INC.)

Manufacturers of

RAYON DEPARTMENT
CELLOPHANE DIVISION

DU PONT Cellophane

WILMINGTON 98
DELAWARE

December 4, 1946

In accepting your orders for Cellophane, we wish to advise that, beginning January 1st, 1947, all orders on hand unshipped in whole or in part will be subject to such prices and terms as are in effect on date of shipment.

We wish to take this opportunity of expressing our appreciation of our past relationship and our hope that it will continue to be mutually satisfactory and profitable.

Very truly yours,

C. F. Brown,
DIRECTOR OF SALES

CFB:VL

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DU PONT

BETTER THINGS for BETTER LIVING . . . THROUGH CHEMISTRY

cc: J. E. Dean
W. J. Harte
W. C. Lock

December 10th, 1946

Mr. T. J. Finnerty, Vice President,
Zellerbach Paper Company,
534 Battery Street,
San Francisco 26, California

Dear Mr. Finnerty:

We wish to advise you that, effective January 1, 1947, we have revised our discount structure on Du Pont Cellophane regenerated cellulose film (first class material only) as follows:

Material as supplied by us for resale by distributors, including your Company, 7-1/2% from published price schedule in effect on date of shipment.

Material for conversion and subsequent resale, 7-1/2% from published price schedule in effect on date of shipment. Material on which this discount is allowed is defined as follows:

Cellophane which is processed and subsequently resold to others in the form of a primary packaging material, container or integral portion of a container.

Processing includes printing, embossing, laminating, cutting to size, bag making, coating, fabricating into windows or liners for cartons, wrappers or bags, rewinding into rolls of less than our minimum standard O.D. for resale; also similar preparation for packaging uses as competitive to the foregoing, if and when developed.

Material for all other uses, list price no discount, as per published price schedule in effect on date of shipment. List price applies to all material purchased by a customer for his own use, by jobbers for resale, and for fabrication into tapes, ribbons, cords, garment bags, covers, bon bon cups, decorative materials and other fabricated items not used as primary packaging materials, containers or integral portions of containers.

Du Pont cellulose acetate film will be covered in a separate letter.

Very truly yours,

C. F. Brown,
Director of Sales

CFB:cp

FABRICATORS

E. I. DU PONT DE NEMOURS & COMPANY (INC.)

Manufacturers of

RAYON DEPARTMENT
CELLOPHANE DIVISION

DU PONT Cellophane

WILMINGTON 98
DELAWARE

December 13, 1946

We wish to advise that, effective January 1, 1947, the discount on Du Pont Cellophane regenerated cellulose film (first grade material only) purchased for conversion and subsequent resale will be 7-1/2% from published list prices in effect on date of shipment. Material on which this discount is allowed is defined as follows:

Cellophane which is processed and subsequently resold to others in the form of a primary packaging material, container or integral portion of a container.

Processing includes printing, embossing, laminating, cutting to size; bag making, coating, fabricating into windows or liners for cartons, wrappers or bags, rewinding into rolls of less than our minimum standard O.D. for resale; also similar preparation for packaging uses competitive to the foregoing, if and when developed.

Tapes, ribbons, cords, garment bags, covers, bon bon cups, decorative materials and other such fabricated items are not used as primary packaging materials, containers or integral portions of containers, and material ordered for such uses will be billed at list prices in effect on date of shipment, net, no discount.

Du Pont cellulose acetate film will be covered in a separate letter.

Very truly yours,

C. F. Brown,
DIRECTOR OF SALES

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DU PONT

BETTER THINGS for BETTER LIVING...THROUGH CHEMISTRY

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CONVERTERS & WINDOW-BOX MFGRS.

E. I. DU PONT DE NEMOURS & COMPANY (INC.)

Manufacturers of

Rayon Department
Cellophane Division

Wilmington 98
Delaware

December 13, 1946

We wish to advise that, effective January 1, 1947, the discount on Du Pont Cellophane regenerated cellulose film (first grade material only) purchased for conversion and subsequent resale will be 7-1/2% from published list prices in effect on date of shipment. Material on which this discount is allowed is defined as follows:

Cellophane which is processed and subsequently resold to others in the form of a primary packaging material, container or integral portion of a container.

Processing includes printing, embossing, laminating, cutting to size; bag making, coating, fabricating into windows or liners for cartons, wrappers or bags, rewinding into rolls of less than our minimum standard O.D. for resale; also similar preparation for packaging uses competitive to the foregoing, if and when developed.

Tapes, ribbons, cords, garment bags, covers, bon bon cups, decorative materials and other such fabricated items are not used as primary packaging materials, containers or integral portions of containers, and material ordered for such uses will be billed at list prices in effect on date of shipment, net, no discount. If you manufacture any of the items listed in this paragraph, we ask that such orders be clearly identified by statement of end use.

Du Pont cellulose acetate film will be covered in a separate letter.

Very truly yours,

C. F. Brown,
DIRECTOR OF SALES

CFB:JL

DU PONT

BETTER THINGS for BETTER LIVING...THROUGH CHEMISTRY

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GOVT EXHIBIT NO. 5047
Civil Action 1216

E. I. DU PONT DE NEMOURS & COMPANY
WILMINGTON, DELAWARE

"CELLOPHANE" DIVISION
MANUFACTURERS OF CELLULOSE FILM

L.A.Y.

April 28, 1941

TO: J. E. HATT

FROM: C. F. BROWN

Subject: CONVERTER POLICY

In the attached memorandum, I have tried to review this important subject not so much from an historical or statistical standpoint but with a view to presenting the general principles involved, and the direction of thinking which is motivating our work.

If you find cause of disagreement in any of the arguments advanced, I would like to have the opportunity of discussing them with you.

CFB VdM
Enclosure

AT 13649

Cellophane
TRADE MARK

April 28, 1941

CONVERTER POLICY

There are two broad policies possible in the promotion and establishment of distribution:

1. Selective. 2. Wide open.

Each of these policies is in successful use in industry today, the choice in each case having been made on the needs and requirements of the individual business - character of product, its potential market, its position in industry development and distribution, its price position, its competition, and its program of promotion.

The Selective Policy:

Since the beginning of our business we have chosen the selective policy, believing it to be best fitted for our particular type of business and operation - and of sufficient flexibility to meet the needs of a growing industry.

This, we feel, was a logical decision as ours was (and still is) a relatively high-priced specialty, promoted in an undeveloped market (still very far from saturation) a trade-marked, patented product, promoted through extensive advertising and creative selling. Selective distribution would not be advisable or successful in connection with products not having these or similar advantages.

We could not, and still cannot sell against our main competitor, paper, on a purely commodity basis at two to four times the price. Specialty selling and selective distribution have been the leading factors in combatting commodity selling and the wide open distribution of paper.

Selective or controlled distribution is a long established

A 13649

principle in connection with products in our category in a wide range of industries and, of course, applies generally to jobber distribution and retailer distribution as well as converter distribution.

As our business grew, as our markets expanded, as new markets opened up, we have likewise expanded our converter distribution, attempting to adapt and widen our selective policy, not only to fit current needs but with an eye to future trends.

The following table shows the growth of our converter distribution:

1928	:	8
1932	:	19
1936	:	26
1940	:	35 (not including 5 branch plants)

<u>The Selective Policy has been successful:</u>

A large volume of business has been built up amounting to 24% of our total sales.

That converter distribution (as to number as well as size) has kept pace with and is adequate to meet the growth in total consumption of our product is evidenced by the fact that this percentage of total sales has remained relatively constant, in fact is slowly increasing.

In 1940, our business with converters amounted to 19 million pounds - 80% of total converter business in transparent cellulose. Sylvania's converter business was estimated at 4,827,000 pounds, 20%. (See attached statement).

Recently our position has been improved in various two-source accounts, including American Paper Goods (15% to 30% of their business).

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Oneida (60% to 80%), Union (10% to 50%), Whiting Patterson (10% to 85%), Andrews (50% to 90%). (See supplement to attached statement).

This indicates a transition of about 675,000 pounds annually from Sylvania to us, changing proportions several per cent in our favor.

We now have 15 exclusive promotional converters, 10 others that buy from us exclusively, 11 two-source converters, (which business we enjoy the majority), a total of 36. Our promotional converters include the recognized leaders, working closely with us and actively cooperating with our sales force. We have been able to develop several whose sole interest is in transparent film - and these naturally have proven the most valuable.

Sylvania also supports the idea of selectivity in their converter program, but have been forced to establish smaller, less able and less desirable outlets.

As far as exclusive representation is concerned, Sylvania has one large converter (Daniels), one medium sized converter (Crystal Tube), and 18 very small converters whom we do not sell, averaging less than 50,000 pounds a year each. Their chief volume, outside of Daniels, is in two-source converters in which they have the smaller proportion. They sell just about as many converters as we do (33), but get one-fourth the volume.

As a result of a selective policy, our position in the converting field is strong.

Present Status:

To judge the need for broadening or changing our present policy, these questions should be answered:

1. Is present plant capacity of present converters ample and more than ample to take care of market today and in the near future?

Our investigations indicate that not only it is ample and able to be stepped up considerably in volume, but that our converters' program of expansion in plant and equipment has been and is sufficiently forward-looking to keep ahead of the demand.

2. Is present coverage of the trade by converters adequate?

We have several organizations whose coverage is national in scope, others sectional. They are active in all "Cellophane" markets and work in close collaboration with our field organization.

Coverage is quite adequate, with the possible exception of the small type of baker in certain sections of the country as mentioned later.

As opposed to our own field force of 50 men, our converters cover the same territory with approximately 500 men.

Today we have from four to ten or more converters battling in every market for our product in every section of the country and developing new directions for its use. In fact, there are many examples of over-solicitation of important trade which has caused actual complaint.

3. Are we losing business to competition by not soliciting or by refusing to sell certain competitive converters?

In the first place, it must be understood that we are continually and actively attempting to improve our position with all competitive two-source converters. This is a part of our current sales program.

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We have succeeded recently in signing up one (Waxide) on an exclusive basis and have materially improved our position within the past year (to the extent of some 600,000 lbs.) with a number of others of the two-source type as already mentioned. Most of this group are long established paper operators firmly wedded to the multi-source type of operation and almost impossible to sell on an exclusive basis.

The largest Sylvania converter, Daniels, is entirely a cut-price operator with one or two men covering only a few large units of business, principally confined to the meat packing industry. We feel it would be most unwise to put Daniels in a position to compete directly with our converters on our trade-marked product. We recognize a serious problem here that we have not yet solved but are convinced we are accepting the lesser of two evils by attempting to handle the situation by other means.

The other exclusive Sylvania accounts are under 150,000 pounds potential (averaging about 50,000 pounds), except Crystal Tube, which is slightly larger, and in the main represent small operators actively competing with our own converters in the same markets, a type that will not add to the development and expansion of our business. Good proof of this is their present low volume and slow growth.

Needless to say, our competitor must establish a certain volume of converted business and we feel it wise to leave undisturbed the most undesirable portion, concentrating our efforts on the most desirable.

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4. By discouraging instead of encouraging the entry of new converters in the transparent film business (except according to program), are we slowing up the progress of the industry?

If capacity was less than requirements and if all markets were not adequately and actively solicited, we would slow up progress.

Under actual conditions as described above, the effect of selectivity should be slight, if any.

It must be remembered that current volume of converted business depends not on the number of converters, the capacity of their plants, and even the amount of order solicitation, but rather on the number of consumers and potential consumers of "Cellophane", the activity in soliciting them and the sound creative merchandising done on them - the ability to develop new business. This type of work can be done by our field organization and a certain type of converter organized to do it - not by the ordinary printer. Experience has shown that best results are obtained by a specialized sales organization and such a sales force can be set up and operated properly only by an able organization - selectivity is necessary.

The will and urge to do that type of creative selling comes under selective and controlled distribution. This will and urge decreases as the distribution of the product becomes more common and the value of a franchise diminishes.

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[redacted]er Selective Policy:

Last fall, after carefully reviewing our requirements as to converter distribution, in recognition of the trend toward "Cellophane" on bread, we made a careful study of the geographical distribution and sources of supply of printed wax paper bread wrappers versus our own distribution of printed "Cellophane".

As a result, we set up a program leading to the establishment of additional converters among the wax paper printers in certain sections of the country.

The first contact has already been made on this specific list of prospects and one has already been signed up on a promotional converter contract. We are now in process of evaluating and selecting others.

This program, we believe, will expand our converter distribution to take care of our needs in the baking industry in the near future.

Other industries at the moment present no particular problem, with the possible exception of the textile industry in the South. Until recently there was not sufficient volume of converted "Cellophane" to warrant a local source of supply, but with the growth of Nylon packaging in "Cellophane", we are giving this matter consideration and have a prospective converter under investigation.

We therefore feel that our present set-up, plus plans of future expansion, properly take care of our growing business in the immediate future.

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Method of Handling Selective Policy:

In addition to planning specific directions for broadening our converter distribution to fit growing needs, we have a constant problem of dealing with requests for establishment as Du Pont converters.

Some of these come from the smaller Sylvania converters who would prefer to ride on the band wagon than further back in the procession. These we are able to divert without definitely closing the door.

The majority, however, come from printers or others who want to get into the business and get a piece of the melon. The number of these over a period of years has been hundreds. Most of them had no definite ideas as to the problems involved - investment, costs, production difficulties, existing plant capacity, competition, profit margins.

The first step in such cases was to encourage the prospect to investigate first and get the facts. Further investigation usually resulted in loss of interest when the facts were ascertained. In only a relatively few cases did the interest continue to a point of action or the prospect prove to be of real potential value to us. Each such case was handled on its merits and the requirements of our program at the time. In a few cases the prospect decided to go ahead and we did not feel we needed him, so his business was not accepted.

True, in these few cases, this meant sacrifice of a certain amount of business to the competitor for a period at least, but relieved us of the criticism of <u>initiating</u> a new competitor to our existing converters when, in our judgment, he was not of a type to add to the total

This is the exact

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volume of "Cellophane" sold. The great majority of applicants have proved to be organizations concerned only in the solicitation of already established accounts, offering little or nothing in the way of ability to promote and develop new business.

Adding a new converter who has nothing to offer in the way of product improvement, market connections, or ability to develop business usually means merely a split up of existing business - not more total business.

Refusing an order from a Sylvania converter or a prospective converter does not necessarily mean loss of that business. It means a user insists on our film. In most cases he will place the business with a Du Pont converter.

We have followed the practice of preparing our converters in advance when we planned to take on one or more new ones, rather than after the fact - and this has been usually successful.

Therefore, in those few cases where a new converter has been started by the competitor, we are in a much better position to take the business with minimum disturbance when already established.

Fortunately, the tendency in such cases is for the new converter to still want our franchise, preferring to tie up to the leader - without exception, his respect for our selective policy is an important reason for his continued desire to tie up to us.

(An exact case in point is that of the Waxide Paper Company who have operated for a year under Sylvania contract and signed with us a promotional converter as of April 15, 1941).

By keeping the number of converters relatively small, but entirely adequate to meet our needs, with constant selective increase, we continually build value into our franchise and strengthen our position

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in respect to establishment of new converters as we require them.

This is well evidenced by Mr. Lake's recent trip to investigate prospective new converters to serve the baking industry in the Middle West, Southwest and Southeast. Without exception, he found them receptive to us and to a selective policy.

Advantages of Selective Policy:

Something possessed by relatively few is prized, respected and desired.

Something that can be had on the asking by anyone is of little value.

That is a basic advantage of the selective policy. We today have a valuable franchise, because it is not easy to get.

Selective distribution and exclusive representation go hand in hand. It is difficult, if not impossible, to maintain exclusive representation without selectivity. You cannot have your cake and eat it, too.

Exclusive representation is valuable to us beyond the tonnage involved.

Our plan of promotional creative selling depends largely upon it. When a converter is exclusive, we can and do work with him closely in the field. We can equip him with our selling and merchandising tools - make his selling more productive.

This is shown by the following table comparing the recent 5-year progress of the exclusive promotional group to the two-source paper operator group. Figures for the latter include both Du Pont sales and estimated sales by Sylvania:

		1936	1940	Gain
Promotional converters	(11)	8,813,000	15,755,000	6,942,000 - 79%
Two-source "	(14)	3,298,000	4,799,000	1,501,000 - 45%

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If we were to lose to competition even 10% of our business with our promotional converters alone, due to adoption of a wide open policy (an extremely conservative assumption), this would amount to 1,550,000 pounds on the basis of 1940 sales. Looking through the Sylvania list of exclusive converters attached does not indicate how this business could be replaced from that source. Omitting Daniels and Crystal Tube, all the balance together total not much more than one half this figure.

Loss of the exclusive feature with our promotional converters would be even beyond the volume of business lost. We could not work in close collaboration. We could arm him to develop business which we might not enjoy, much time of our men would be wasted in doing competitive insurance work, their productivity greatly reduced due to the adding of much greater competitive complications. (Specification of film on every order by the user would be our only safeguard). To protect our position, our sales force would have to be increased.

We would be placed in a position of competitive selling with our best customers, instead of closely collaborating with them in a situation of mutual confidence. We would lose one of the strongest weapons we have in building additional converter distribution - the active cooperation of our field force. In addition, the use of competing films in a converter plant would multiply service problems and expense.

Use of the standard "Cellophane" label is today confined to exclusive promotional converters and it is an asset of real value. It would hardly be possible to control its use and maintain its value under non-exclusive conditions. The value of our large advertising investment would be materially reduced.

Competition today between converters is tremendously keen - not only between Du Pont and Sylvania converters but between Du Pont converters.

A 1349

Prices have been driven down to a point where profit margins are very low, particularly on well established uses for "Cellophane".

Added capacity in the industry is not needed beyond what is included in our program and if such were provided, it would tend to reduce profit margins still further.

The best customer is a satisfied customer - or one who is reasonably well satisfied.

CONCLUSION:

The selective policy has been successful to date.

It has been expanded to meet our growing needs.

A program has been set up to expand it still further.

The basic principle of selectivity can continue to be used on a broader and broader basis for some time to come.

Productive capacity is ample, solicitation of the trade is sufficient, and distribution is satisfactory under the program outlined.

The time has not yet come for a wide-open policy. It may come later - particularly if and when other competitors enter the field when our patent rights expire.

Change now to a wide-open policy would endanger our position with our exclusive converters. Would they long continue to refuse to accept orders given them by competitors or involving competitive material when we are willing to sell anyone and everyone? We think not.

We have spent millions of dollars in advertising and promotion and have created a valuable brand and franchise. We can maintain and increase its value by selecting worthy partners. We can retain our advantageous position as compared to the paper industry as long as our competition is limited.

A 13649

The converter problem is admittedly one of the most intricate and difficult we have. No plan or policy will solve it completely.

After living closely with it for many years, the Sales Department is unanimous in its belief that it can be best worked out by continuing to apply the principle of selectivity, which can be broadened as we grow to meet changing requirements.

In addition to establishing a broad program of sufficient flexibility, we propose to carefully consider each case as it presents itself (such as Cuneo), and decide on its individual merits - its fitness to contribute to the general plan, its effect to our business as a whole.

C. F. BROWN,
DIRECTOR OF SALES.

CFB MdM
4/28/41

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COMPETITIVE CHANGES WITH CONVERTERS IN 1941

	1st Quarter 1941	1st Quarter 1940
AMERICAN PAPER GOODS	28,048	14,225
— Du Pont secured an estimated 15% in 1940. Currently 25-30%		
THOS. M. ROYAL	85,648	150,114
Possibly some loss in position, but Royal lost Hershey to U.S. Envelope, plus some bread volume.		
ONEIDA	92,423	37,661
Apparently we have picked up from about 60% to 80% or more. Increased every quarter 1940 - 37,661; 55,036; 62,147; 96,689.		
U. S. ENVELOPE	284,716	218,282
Increase indicates shift of Hershey business from Royal.		
UNION BAG & PAPER CO.	197,800	19,355
125,375 lbs. was MAYTR (gas masks) so that probability is status about 50% on other business as against 10% last year.		
WHITING PATTERSON	26,684	1,575
From 10% to 85% for Du Pont.		
P. L. ANDREWS	15,502	1,459
From 50% to possibly 90% Du Pont.		
WAYIDE PAPER COMPANY		
Signed as Du Pont promotional converter as of April 15, 1941. 1940 volume 75,000 pounds - larger now.		

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GOVT EXHIBIT NO. 5106
Civil Action 1218

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CONVERTER AGREEMENT

Between

E. I. DU PONT DE NEMOURS & COMPANY
Incorporated

"Cellophane" Division (Manufacturer)

and

_____ (Converter)

_____

1. The Converter agrees to purchase from the Manufacturer, and the Manufacturer agrees to sell to the Converter, for conversion purposes only, "Cellophane" cellulose film for the period of this agreement. The Converter shall pay therefor the Manufacturer's list price current at time of delivery, less the Converter discount of seven and one-half percent (7-1/2%).

2. This agreement shall continue until terminated by either party hereto upon not less than thirty (30) days advance written notice to the other.

3. The converted products made from the material so purchased may be labeled and marketed as "Cellophane" cellulose film, in accordance with specific instructions furnished by the Manufacturer.

4. The Manufacturer agrees to reimburse the Converter for one-half of the aggregate amount expended by the latter during the continuance of this agreement in advertising the Manufacturer's cellulose film and its trade-mark "Cellophane", subject to the following conditions and limitations:

(a) The allowance shall not exceed two and one-half percent (2-1/2%) of the Converter's aggregate annual purchases hereunder.

(b) This provision shall apply only to cooperative advertising of the following types, it being agreed that before definite commitments are made for expenditures under this arrangement, the kind and amount of advertising will be discussed with and approved by the Manufacturer:-

Advertising in trade papers or magazines, featuring the Manufacturer's product under its trade-mark "Cellophane".

Production and distribution of house organs and circular matter featuring the Manufacturer's product under its trade-mark "Cellophane".

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Featuring the Manufacturer's Standard "Cellophane" 1
to the extent of:

1. Cost of preparing and distributing catalogs, folders or circular matter featuring said Standard Label.

2. Cost of such Standard Label in sticker form.

3. Additional color cost resulting from printing of said Standard Label on shipping cartons.

Exhibits shown at Industrial Conventions featuring the Manufacturer's Standard "Cellophane" Label; limited however to cost of space, cost of booth and erection of booth.

(c) The Converter shall submit to the Manufacturer copies of all such advertising matter and satisfactory evidence of the expenditures made therefor. All advertising matter containing the Manufacturer's Standard "Cellophane" Label shall conform to the provisions of the Manufacturer's regular form of Standard Label agreement, a copy of which has been made available to the Converter.

5. Conditions of Sale outlined on attached rider No. 1 apply on all purchases covered by this agreement.

6. The rights and obligations of this agreement shall extend to the subsidiaries and affiliates of the Converter which are shown on the attached Rider No. 2 or any rider hereafter substituted therefor; and the Converter guarantees payment for all purchases made by any subsidiary or affiliate while it is so listed.

E. I. DU PONT DE NEMOURS & COMPANY _____

BY _____ BY _____

Director of Sales,
"Cellophane" Division

Date _____ Date _____

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AGREEMENT RIDER NO. 1

E. I. DU PONT DE NEMOURS & COMPANY
"Cellophane" Division
and

_____

CONDITIONS OF SALE

1. Seller's liability ceases upon making delivery of material purchased hereunder to carrier at shipping point in good condition, the carrier acting as Buyer's agent.

2. The Seller makes no warranty of any kind, express or implied, except that the goods sold hereunder shall be of merchantable quality; and the Buyer assumes all risk and liability for results obtained by the use of the material covered by this agreement, whether used singly or in combination with other products.

3. No claim of any kind, whether as to goods delivered or for non-delivery of goods, shall be greater in amount than the purchase price of the goods in respect of which such damages are claimed, and failure to give notice of claim within 90 days from date of delivery, or the date fixed for delivery, respectively, shall constitute a waiver by the Buyer of all claims in respect of such goods.

4. In the event Buyer fails to fulfill the terms of payment, or in case Seller shall have any doubt at any time as to Buyer's financial responsibility, Seller may decline to make further deliveries except upon receipt of cash or satisfactory security.

5. The Buyer shall reimburse the Seller for all taxes, excises or other charges which the Seller may be required to pay to any Government (national, state or municipal) upon the sale, production or transportation of the commodities sold hereunder.

6. In the event of fire, flood, drought, earthquake, windstorm, accident, explosion, war, civil commotion, act of goyernment authority, labor trouble, embargo, car shortage, reduced supply of raw materials, or any other circumstance beyond the control of the parties, which interferes with the production, transportation, or consumption of the commodities covered by this agreement, quantities so affected may be eliminated from the agreement without liability, but the agreement shall otherwise remain unaffected.

7. This agreement is not assignable or transferable by Buyer, in whole or in part, except with the written consent of the Seller.

8. This agreement constitutes the entire contract of sale and purchase of the material named herein. No modification of this agreement shall be of any force or effect unless specifically approved in writing by the party claimed to be bound thereby, and no modification shall be effected by the acknowledgment or acceptance of purchase order forms containing different conditions.

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AGREEMENT RIDER NO: 2

E. I. DU PONT DE NEMOURS & COMPANY
"Cellophane" Division

and

_____

Date _____ 19

Purchases made by subsidiaries and affiliates listed below are to be included in the agreement to which this rider is attached. If no subsidiaries or affiliates, please so state.

Name	Street and Number	City	State

_____

By _____
(Converter)

O-52-C

GOVT EXHIBIT NO. 5378
Civil Action 1216

PROMOTIONAL CONVERTER AGREEMENT

between

E. I. DU PONT DE NEMOURS & COMPANY
Incorporated
Cellophane Division (Manufacturer)

and

RICKET TUBE & BAG CO., INC., (Converter)
New York, New York.

WHEREAS Manufacturer is the producer of cellophane; and

WHEREAS Converter is engaged in the processing, converting and distribution of cellophane in the form of packages, wraps and containers, and in addition to these normal functions of a Converter is desirous of cooperating fully with the Manufacturer in its efforts to promote and expand the use of cellophane in this form;

NOW, THEREFORE, it is mutually agreed between the parties as follows:

1. Manufacturer hereby appoints Converter as one of its Promotional Converters, and undertakes to extend to Converter all reasonable technical and merchandising assistance in promoting the use of cellophane.

2. Manufacturer grants to Converter the privilege of using its red and blue Standard Label in connection with the advertising and sale of said product.

3. Converter recognizes that the goodwill attached to the trade name of Manufacturer and its product is dependent in a measure upon the essential functions of Converter; and Converter agrees that to the best of its ability it will conduct its operations and activities in such manner as will sustain and promote the goodwill of Manufacturer.

4. Converter shall purchase from Manufacturer, and Manufacturer shall sell to Converter, the latter's entire requirements of cellophane for conversion purposes only. Converter shall pay therefor Manufacturer's list price current at time of delivery, less the Converter discount of ten per cent (10%).

5. Manufacturer shall have no control over and no responsibility for the acts of Converter, and the latter shall not represent itself to be the agent of Manufacturer for any purpose.

6. This agreement shall continue in effect until terminated by either party upon not less than thirty (30) days' advance written notice to the other.

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7. The Conditions of Sale outlined on attached Rider No. 1 shall apply to all purchases hereunder.

8. The rights and obligations of this agreement shall extend to the subsidiaries and affiliates of Converter which are shown on the attached Rider No. 2 or any rider hereafter substituted therefor; and Converter guarantees payment for all purchases made by any subsidiary or affiliate while it is so listed.

E. I. DU PONT DE NEMOURS & COMPANY

By C. F. Brown
C. F. Brown
(Manufacturer)

Date May 13th, 1942

REGENT TUBE & BAG CO., INC.

By Geo. W. Burkhart
Geo. W. Burkhart
(Converter)

Date May 1st 1942.

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AGREEMENT RIDER NO. 1

E. I. DU PONT DE NEMOURS & COMPANY
Cellophane Division

and

REGENT TUBE & BAG CO., INC.

CONDITIONS OF SALE

1. Seller reserves the right to revise the quantities and delivery dates specified in any order from Buyer, and Buyer agrees to accept Seller's decision as to any such revision as final.

2. Seller's liability as to delivery ceases upon making delivery of material purchased hereunder to carrier at shipping point in good condition; the carrier acting as Buyer's agent.

3. Seller makes no warranty of any kind, express or implied, except that the goods sold hereunder shall be of merchantable quality; and Buyer assumes all risk and liability for results obtained by the use of the material covered by this agreement, whether used singly or in combination with other products.

4. No claim of any kind, whether as to goods delivered or for non-delivery of goods, shall be greater in amount than the purchase price of the goods in respect of which such damages are claimed; and failure to give notice of claim within 90 days from date of delivery, or the date fixed for delivery, respectively, shall constitute a waiver by Buyer of all claims in respect of such goods.

5. In the event Buyer fails to fulfill the terms of payment, or in case Seller shall have any doubt at any time as to Buyer's financial responsibility, Seller may decline to make further deliveries except upon receipt of cash or satisfactory security.

6. Buyer shall reimburse Seller for all taxes, excises or other charges which Seller may be required to pay to any Government (national, state or municipal) upon the sale, production or transportation of the commodities sold hereunder.

7. In the event of fire, flood, drought, earthquake, windstorm, accident, explosion, war, civil commotion, act of government authority, labor trouble, embargo, car shortage, reduced supply of raw materials, or any other circumstance beyond the control of the parties, which interferes with the production, transportation or consumption of the commodities covered by this agreement, quantities so affected may be eliminated from the agreement without liability, but the agreement shall otherwise remain unaffected.

8. This agreement is not assignable or transferable by Buyer, in whole or in part, except with the written consent of Seller.

9. This agreement constitutes the entire contract of sale and purchase of the material named herein. No modification of this agreement shall be of any force or effect unless specifically approved in writing by the party claimed to be bound thereby, and no modification shall be effected by the acknowledgment or acceptance of purchase order forms containing different conditions.

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AGREEMENT RIDER NO. 2

E. I. DU PONT DE NEMOURS & COMPANY
Cellophane Division

and

REGENT TUBE & BAG COMPANY, INC.

Date May 1st, , 19 42

Purchases made by subsidiaries and affiliates listed below are to be included in the agreement to which this rider is attached. If no subsidiaries or affiliates, please so state.

Name	Street and Number	City	State
None			

By _____
(Converter)

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AMENDMENT TO AGREEMENT BETWEEN

REGENT TUBE & BAG COMPANY

and

E. I. DU PONT DE NEMOURS & COMPANY

It is hereby mutually agreed between the parties hereto that the agreement entered into as of May 1, 1942 between REGENT TUBE & BAG COMPANY and the E. I. DU PONT DE NEMOURS & COMPANY covering cellophane be amended in the following manner:

Section 7 under "Conditions of Sale" is deleted in its entirety and the following substituted in its place:

> "No liability shall result from delay in performance, or non-performance, caused by circumstances beyond the control of the party affected, including, but not limited to, Act of God, fire, flood, war, government action, accident, labor trouble or shortage, inability to obtain material, equipment or transportation. Quantities so affected may be eliminated from the contract without liability, but the contract shall remain otherwise unaffected.
>
> "In the event of inability during the present national emergency to supply the total demands for the material specified in this contract, Seller may allocate its available supply among any or all purchasers on such basis as Seller may deem fair and practical without liability for any failure to perform contracts which may have been formed hereunder".

This amendment shall become effective June 1, 1944.

The agreement of May 1, 1942, except as modified in the above manner, shall remain in full force and effect.

E. I. DU PONT DE NEMOURS & COMPANY
CELLOPHANE DIVISION

By C D Brown

Director of Sales

Date June 12, 1944

REGENT TUBE & BAG CO.

By Leo M Burkhardt

Date June 8th 1944

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GOVT EXHIBIT NO 5380
Civil Action 1216

CC: B. Y. BANDY - New York

March 4, 1946
~~March 4, 1946~~

RECKITT TUBE & BAG COMPANY,
39 East 20th Street,
New York 3, New York.

Attention: Mr. George M. Burkhart

Dear Mr. Burkhart:

In accordance with your request, we are cancelling, 30 days from this date, your promotional agreement covering purchases of du Pont Cellophane. In the meantime, Mr. Bandy will present for your signature the regular converter's agreement.

We fully appreciate the difficulties our converters are experiencing in filling the needs of their customers. That is why, during this period of shortage, we are attempting to distribute available film as equitably as possible. We are sure you will agree this is the only fair policy to pursue, until we are again able to supply the full demands of our customers.

Yours very truly,

C. F. Brown,
DIRECTOR OF SALES.

pd

COPY

C316-1C

GOVT EXHIBIT NO
Civil Action 1216

August 6, 1945
August 6, 1945

TO: R. L. RICHARDS - T. L. HINES

FROM: C. F. BROWN

Subject: QUANTITY DISCOUNTS POST-WAR

The attached memorandum is the result of review by the writer of previous discussions and suggested schedules, in order to be prepared to make a definite recommendation whenever the subject was brought up for discussion.

The Wilmington sales group have just held a meeting at which this subject and the attached memorandum were reviewed, and recommend that Schedule No. 1 therein be adopted because it best meets our requirements from a sales standpoint and is also the simplest action to take -- merely continuing the present schedule below $500,000 and discontinuing it above that point.

Inasmuch as it may be advisable to take the second step of eliminating quantity discounts entirely, it would seem logical not to introduce a different schedule for what may prove to be a short period when the present schedule adequately meets our requirements.

The above, of course, assuming that there are no legal objections of importance.

cfb MdV
Attachment

C 310-8M

EXHIBIT NO. 5404
Action 1216

E. I. DU PONT DE NEMOURS & COMPANY
Incorporated
"CELLOPHANE DIVISION

FABRICATOR AGREEMENT

E. I. DU PONT DE NEMOURS & COMPANY, a Delaware Corporation, with "CELLOPHANE" Division general sales offices at Wilmington, Delaware, the Manufacturer, and SILDORE NOVELTY CORP., New York, N.Y., the Fabricator, mutually agree as follows:

1. The Fabricator agrees to purchase from the Manufacturer, and the Manufacturer agrees to sell to the Fabricator, for fabrication purposes only, "Cellophane" cellulose film for the period of this agreement. The Fabricator shall pay therefor the Manufacturer's list price current at time of delivery, less the Fabricator discount of three per cent (3%). The Manufacturer reserves the right to suspend credit at any time when in its judgment the financial condition of the Fabricator warrants such action.

2. This agreement shall continue until terminated by either party hereto upon not less than thirty (30) days advance written notice to the other.

3. The fabricated products made from the material so purchased shall be marketed as products made from "Cellophane" cellulose film, in accordance with specific instructions furnished by the Manufacturer.

4. If Manufacturer's production is curtailed by injury to plant, strike, lock-out, embargo, war, delay of carriers, inability to obtain in usual course materials, machinery, or other requisites for production, or by other circumstances beyond its control, delivery shall be made and accepted in proportion to actual production as compared with total capacity.

5. The rights and obligations of this agreement shall extend to the subsidiaries and affiliates of the Fabricator which are shown on the attached rider or any rider hereafter substituted therefor; and the Fabricator guarantees payment for all purchases made by any subsidiary or affiliate while it is so listed.

E. I. DU PONT DE NEMOURS & COMPANY

By C Bacon
Director of Sales,
"Cellophane" Division.

Sildore
SILDORE NOVELTY CORP.

By Arnold M Friedman

NEGOTIATED BY [illegible]

DATE 1/30/40

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FABRICATOR AGREEMENT RIDER

E. I. DU PONT DE NEMOURS & COMPANY
Incorporated"
"CELLOPHANE" DIVISION

and

EFFECTIVE DATES _____ to

_____ incl.

Purchases made by subsidiaries and affiliates listed below are to be included in the agreement to which this rider is attached. If no subsidiaries or affiliates, please so state.

Name	Street and Number	City	State
None			

_____

By _____
(Fabricator)

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GOVT EXHIBIT NO. 392
Civil Action 1216

To: EXECUTIVE COMMITTEE

From: DEVELOPMENT DEPARTMENT

SERIAL NO. D-1068

~~April 11,1923~~
April 14,1923

CELLOPHANE

The cellophane proposition was discussed by the Executive Committee during November and December of 1922 and An option agreement relative to the possible acquisition of the cellophane rights for North and Central America was executed on January 8th,1923. This option expires on May 8th,1923.

Under the terms of the option agreement the duPont Company would make a thorough investigation of cellophane with respect to the desirability of engaging in such manufacture in the United States. In the event that the duPont Company would exercise the option within four months from date of execution of the agreement, the American Cellophane Company would be organized on the basis that the duPont Company would provide 32/60 of the capital required up to $1,000,000, and obtain 32% of the capital stock issued; while the French owners of the process would obtain 48% of the capital stock, of which, however, 8% would be purchased on the same basis as the duPont Company, so that the French interests would obtain 40% of the capital stock issued for the first million dollars capitalization as payment for their patents, information and co-operation. Under the contract neither party was obligated to subscribe to any additional amount of money beyond one million dollars total, but it was understood informally that both the French interests and the duPont Company would probably go ahead with the proposition

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even if the money required should exceed one million dollars for the first installation, provided the investigation should make the proposition appear desirable in other respects. It was further understood informally that in case of such additional capital being required the du Pont Company would contribute its share on the basis of 52% or 60% of the additional capital, and not on the basis of 52/60th. In the event that the du Pont Company should elect not to exercise the option it cannot for a period of 5 years make use of any confidential information obtained during the investigation of the French plant which would be equivalent to preventing the duPont Company entering the manufacture of a product of the cellophane type for a period of 5 years from the date of expiration of the option agreement.

A commission for the purpose of investigating the cellophane manufacture in France was selected, composed of Mr. Walter Hope of the Engineering Department and Mr. Howard J. White and Mr. J.S. Dunham of the du Pont Fiberssilk Company. Col. W.C. Spruance, Vice President, who had planned to visit Europe in connection with this and other subjects, consented to act as the head of the commission while in France. The work of the members of the commission was divided in such manner that while they co-operated in their studies, Mr. Hope undertook to prepare the estimate of cost of an American cellophane plant, while Mr. White studied the manufacturing operations, and Mr. Dunham investigated the commercial aspects of the subject. The commission left New York about the middle of January, returning about the beginning of March. During the absence of this commission in France the services were obtained of one of the salesmen of the duPont Fiberssilk Company who made a canvass of the consumption and sales prospects for cellophane in the eastern United States.

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MANUFACTURE OF CELLOPHANE:

The manufacture was investigated very thoroughly at the plant in France located near Paris. The process has been operated over a period of several years but probably, due to the disorganized industrial conditions in France during the war and after, the commercial developments have probably been considerably slowed down. Three casting machines are in operation but only one of these three machines is as large as the machine recommended for use in America, two such machines being proposed for immediate installation in the American plant. The total French production during 1922 was about 970,000 lbs., whereas the estimated output for the first American plant is 900,000 lbs. rated annual capacity. The French plant last year exported about 350,000 lbs. to the United States, or nearly 40% of the output, whereas France took about 36% of the output. The best quality of the French output was shipped to the United States, clear transparent sheets, comprising about 90% of the American imports. No description of the process is given in this report in order not to make it unnecessarily long, and it may be sufficient to state that the members of the commission are unanimous in stating that the manufacture of cellophane, as demonstrated to them, showed the process to be entirely practicable and satisfactory for operation in the United States. The operations appear to proceed reasonably smoothly and with no undue percentage of seconds or inferior product nor with any undesirable frequency of shut-down or troubles.

A relatively minor point should be mentioned on account of the prominence it received during last year's negotiations. It will be recalled that cellophane is manufactured from a viscose solution and it was stated by the French representative that the plants for producing the viscose solution were identical, and that also the viscose solutions themselves were identical for artificial silk and cellophane. This statement appeared important on account of the possibility of considerable savings both in

Cont of operation and construction of a cellophane plant as an addition to the Buffalo duPont Fiberasilk plant. Strictly speaking this statement made by the French representative was found to be incorrect, inasmuch as the cellophane viscose solution must have different physical properties from the viscose solution used in the manufacture of silk, so that the solutions would not be interchangeable between the two plants. However, the chemical composition of the two viscose solutions is identical and the difference in physical properties is caused by a slight change in the method of manufacture so that either viscose solution may be manufactured in the same plant. Therefore the explanation made by the French representative is not strictly correct, but for practical purposes correct, inasmuch as the solution plants are interchangeable and the raw materials identical.

TRADE-MARK

It has been ascertained that the name "cellophane" is protected by trade-marks in the United States but there is a conflict relative to ownership between the French Cellophane Company and one of its former selling agents in this country. At this time the French interests have not a clear title to the trade-mark "cellophane" and the present sales agent is selling this article under another name. However, no great importance is attached to this matter because it is not indicated that the name "cellophane" is particularly desirable or valuable, and furthermore the information obtained indicates that the French interests will be able to establish their rights to the name "cellophane". The opinion of our Legal Department has been obtained in this connection as shown by Exhibit "A". In the writer's opinion the only point of importance relative to the unsatisfactory status of this trade-mark situation is that the French interests should at their own expense conduct any neces-

sary litigation in this connection, so that the American Cellophane Company should obtain clear title to the name "cellophane" without any expense.

PATENTS:

The French interests took out several patents some years ago and thereupon during the negotiations relative to the American Cellophane Company, they undertook to secure additional patents on the process through application for patents in this and other countries. The French interests were and possibly may still be, decidedly but honestly mistaken in their ideas relative to the extent of the patent protection on cellophane, especially in the United States. In the writer's opinion the patent protection at present is exceedingly inadequate not to say worthless, and the future patent protection is problematical because it is based on applications for patents, the issuance of which may not be determined for a matter of two years or more. The present patents already issued are of no consequence because the principal ones are quite old, and furthermore changes have been made in the process and apparatus so that the present process and equipment used in France and recommended for use in the United States are not in accordance with their existing patents. It would seem that the present patents may be practically dismissed from consideration.

With respect to patents which may be secured, it would seem that only one of them, as at present advised, will be of any commercial value. However, this particular patent application, while probably important if obtained, will not give the protection which the du Pont Company was led to believe would be acquired when the option agreement was negotiated. The French have undoubtedly been seriously at fault in paying insufficient attention to the American patent law, and the value of the patent which will be obtained, based on the application just filed in this country, is considered quite insufficient as a satisfactory

legal protection which would give the American Cellophane Company a practical monopoly on the manufacture of this product. Certainly no patent protection (product patent) can be obtained in the United States which would in the slightest degree prevent or hinder the manufacture of cellophane or cellophane-like products in other countries, and importing same into the United States. The extent of patent protection against manufacture in Europe and export to the United States is unknown and indeterminable. While a great deal of ingenuity can be claimed for the development of the cellophane process, it is unfortunate that it cannot be conceded that any ingenuity is shown in connection with the particular development to be covered by the principal application for patent.

The writer is decidedly of the opinion that it is more than likely that competitive cellophane manufacture will be attempted in this country and which cannot be stopped on the strength of existing patents. It must be further realized that applications for patents have no legal standing and the patents can probably not be secured for a matter of a few years, so that competitive manufacture could not be stopped until the patents are actually issued sometime hence. It is somewhat questionable to what extent competitive plants could be forced to close down if constructed and operated in good faith prior to the publication of the new cellophane patents. Such attempted action on the part of the American Cellophane Company would be very likely to lead to litigation because the patents which will probably be obtained will certainly not be so strong as to make any competitor close down and sacrifice the investment without a struggle. In the writer's opinion it is by no means certain that the American Cellophane Company could maintain a monopoly on the strength of either present or prospective patents. It is therefore believed that competitive cellophane manufacture in this country must be en-

rected and that litigation in this connection will probably result with the outcome of such litigation in doubt with respect to whether or not competitive manufacture can be prevented.

For a detailed discussion of the patent situation reference is made to Exhibits "B" and "C", giving the discussions of Mr. Esquir of the Patent Division of the Legal Department, and Mr. George Rouker, Chief Chemist of the Fiberslik Company.

COMPETITIVE ARTICLES:

The principal use of cellophane is as a wrapper or protective covering on packages of various kinds. Cellophane is also used for other purposes such as millinery articles, but the investigation shows that the best prospects for largely increased sales are in connection with its use as a protective covering for packages, adding greatly to the attractive appearance of same. The principal competitive products of cellophane are therefore other wrapping materials serving a similar purpose and which are principally sheet gelatin, tin foil and glassine paper. Glassine paper is used today in enormous quantities, running into thousands of tons per year. It has come into favor as a protective wrapping for all kinds of containers due to its semi-transparency or translucency which gives the package the appearance of being tightly sealed against moisture and dirt and yet making it possible to observe the article and read printed matter on the package through the covering.

As regards the division of use of the above materials by industries, it can be said roughly that cellophane and sheet gelatin are used mainly by manufacturers of candy, fruits and toilet articles in order to improve the attractiveness of the package and seal it against dust and finger prints. Tin foil is mainly used by the tobacco industry in the making of cigarette containers, although considerable quantities are also used by other industries. Glassine paper has probably the broadest use

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of any of these articles lie principally to its low cost, as it is in no way comparable as regards quality with any of the above products.

Gelatin and tin foil are considerably higher in price than glassine paper and are used at the present time almost wholly on high priced articles where the margin of profit is sufficient to justify this added expense. This was brought out by interviews of various manufacturers, for instance the S. F. Whitman Company, manufacturers of high grade candies, the largest user of cellophane in this country; whereas manufacturers of cheaper products stated that the price was entirely too far out of line for them to consider its use.

From the standpoint of similarity, sheet gelatin is the nearest competitor of cellophane, but in all of the interviews reported not one of the users reported that gelatin was the equal of cellophane. It seems that gelatin cracks very readily and does not make into as neat packages as cellophane - that it is apt to get sticky in humid weather, causing the dust to stick to the surface. It also has a tendency to stick together while in storage. For wrapping purposes the report indicates that the gelatin sheeting is not as satisfactory a material as cellophane.

As regards the relative price of these various products, cellophane is handicapped for it is the highest priced material of any of those mentioned. Judging by a survey of the trade, the ruling price appears to be in the neighborhood of 10½¢ to 10¾¢ per thousand square inches, some buyers paying slightly more and others slightly less; this price refers to special cut sizes.

For comparative purposes we give herewith a table showing the approximate cost per pound equivalent to different prices per thousand square inches:

10¾¢	per 1000 sq.inches is equivalent to	$2.61 per lb.
10¢	" " "	2.48 "
9¾¢	" " "	2.36 "
9¢	" " "	2.24 "
8¾¢	" " "	2.11 "
8¢	" " "	1.98 "

In order to show how the cost of cellophane compares with some of its competitors, we have computed other costs on a square inch basis. These figures are approximate as the price of the various materials is dependent on the quantity purchased, and for this purpose we were not able to obtain complete figures. These prices are for materials of approximately the same thickness:

Pure tin foil	6½¢ per 1000 square inches
Sheet gelatin	5¢ to 11¢
Glassine paper	0.5 to 1.4¢
Wax paper	1.76¢

It has been suggested that very thin sheets of cast nitrocellulose film might be used for the same purpose, but on account of the inflammability of such film, this does not appear to be a probable competitor. It has also been suggested that very thin sheets of cast cellulose acetate film could be used for the same purpose as cellophane, but while such film might in general be just as good or even superior to cellophane, as far as moisture proofing quality is concerned, it would seem that the cost of the cellulose acetate film would be considerably higher, probably 25 to 50% higher, so that no serious competition is believed to be probable as a result. Undoubtedly glassine paper is so inferior that it belongs in an entirely different class and has hardly to be considered as a competitor of cellophane, whereas sheet gelatin is so inferior in quality, while at the same time nearly as expensive as cellophane, that the gelatin probably would be almost eliminated from use as soon as cellophane can be marketed in sufficient quantity to meet the demand. Tin foil is superior to cellophane in that it is more moisture proof, so that the tin foil packages should keep the contents in better shape as far as moisture is concerned than cellophane, which has been found to be not particularly efficient in this regard. However, as a matter of fact tin foil is never free from pin-holes. For this reason the tin foil may not in practice appear to be particularly superior

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to cellophane in this regard, but it has of course the advantage of being somewhat cheaper. On the other hand the cost of the wrapper is a very small percentage of the selling price of the article, and the added attractiveness due to transparency of the wrapper is of sales value, so that the difference in cost between cellophane and tin foil is not necessarily important.

SALES PROSPECTS:

Sales of cellophane in the United States last year were probably in the neighborhood of 350,000 lbs., but the selling agents in this country were unable to obtain all the cellophane which they wanted from the French plant. A careful canvass has been made of the eastern United States and there would seem to be no doubt that over half a million pounds of cellophane can be sold annually without effort and the sale of one million pounds annually should not give any difficulty.

The principal use of cellophane is as a protective wrapping and as such it is very satisfactory; according to the reports from the trade it has enabled manufacturers to save considerable sums of money due to the prevention of their packages becoming shopworn, and increasing sales because of increased attractiveness. There was hardly a concern interviewed who did not speak highly of the product and who showed a desire to use more of it. The principal drawback in such cases where it was not used was the price.

It was suggested that possibly cellophane might act as a moisture-proof wrapping, and with this in view, experiments were made at the Experimental Station to determine the relative merits of cellophane, tin foil, glassine paper and wax paper. The results of these tests showed that cellophane was not much better than any of the other materials, and that from the standpoint of moisture proofing, tin foil was the best, although not perfect.

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The product has been put to many varied and different uses in France due to its longer use in that country, and while all of these uses may not prove popular in the United States, nevertheless there is no doubt but what a broader field of usefulness can be developed for this product .

One of the most desirable uses to put this product to would be that of cigarette containers. This industry consumes enormous quantities of foil and paper, and as the material is of equal quality to most of the wrapping papers and superior in point of appearance and transparency, we believe that the business should be worked on because of relatively enormous possibilities.

It would seem that in the case of possibly very large consumption in connection with the cigarette packages that cellophane could be manufactured and sold at a price to the cigarette manufacturers which would not be much higher than the tin foil price, and per package of cigarettes, the increased price would be negligible. To-date cellophane has been sold in this country only for wrapping purposes in the form of relatively small sheets, weighing 17 to the pound, each sheet containing 1465 square inches(37½x39). On the other hand a tremendous amount of packing is done in this country by automatic packing machines which require the wrapping material in very long narrow sheets in roll form. It is confidently believed as a result of the study made that with cellophane offered to the trade in such form, very large increases in sales can be made, and it is entirely feasible to make cellophane in continuous rolls of any desired length and width up to three feet.

The plan of the projected American factory provides space for three cellophane casting machines and the installation at the start of two machines. It may be stated that the market for the output of one machine is already established in this country and the sales of the output of the second machine without difficulty is also indicated, and at approximately present

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prices. The study further indicates that with further sales efforts, and particularly supplying cellophane in roll form suitable for modern packing methods, and especially if the price can be reduced somewhat, there are prospects for a very large increase in the consumption of cellophane beyond the rated capacity of the projected American plant. The reports on the trade prospects are on file in this Department, but not included in this report on account of their great length.

Photographic Film:

When the contract was made with the French interests it was understood that manufacture of cellophane for photographic film was not included in the option though it was known that the French were actively engaged in the possible development of cellophane for this purpose. However, the cellophane commission was advised during their investigation in France, that the American Cellophane Company would obtain the exclusive right to the manufacture of cellophane film base, so that the only rights which the American Cellophane Company would not obtain would be the coating of the cellophane film with the photographic chemicals and the sale of the sensitised photographic film. This is very gratifying because so far as the duPont Company is concerned the manufacture of film base, if this proposition should turn out successfully, would give more than expected when the option agreement was executed, and would also give to the American Cellophane Company the more desirable part of the cellophane photographic film development.

IMPORT DUTY:

Under the Underwood tariff which was in effect up to September 22nd, 1922, cellophane was imported into this country and duty assessed on a 25% ad valorem basis by reason of its similarity to sheet gelatin. The import price on which the duty was assessed has been about $1.16, but due to fluctuating French

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exchange this price may have fluctuated considerably. At an exchange rate of 6-1/2¢ per franc the import duty was 29¢ per pound, so that the import cost including transportation and insurance of cellophane in this country to the importers who are the agents for the French Cellophane Company is $1.47 per pound.

However, it is believed that under the new Fordney-McCumber tariff at present in force the duty will probably be specific at 40¢ per pound according to paragraph 31 covering compositions of cellulose, in accordance with which the import cost duty paid at the exchange of 6-1/2¢ per franc, based on present French selling prices, would be $1.58 per pound.

It cannot be said that the import duty gives a great deal of protection against importation from continental Europe with its greatly depreciated exchange. Some European countries have a decided advantage at the present time over this country in regard to labor and construction costs and the duty assessed up to this time of 25% ad valorem would be insufficient for satisfactory operation in this country. It is, however, probable that the Treasury Department could be made to assess duty on the basis of 40¢ per pound under paragraph 31, which would give a fair protection to the American manufacturer, though possibly not sufficient to maintain the present selling price. While the French claim patent protection precluding such manufacture, the adequacy of such protection is doubted.

COST OF PRODUCTION AND SALE:

The cost of production has been estimated very carefully and the figures shown below are based on the figures supplied by Mr. White:

Total Materials	0.30
Operating Labor	.22
Total Repairs, Labor & Supplies	.11
Power	.11
Superintendence & Laboratory	.06
General Works Expense	.08
Production Department Expense	.05
Taxes and Insurance	.02
Depreciation	.15
Contingency Fund	.05
	1.13

The direct operating costs are based on the information obtained from the French plant recalculated to American conditions. The overhead and general expenses are based largely on the experience obtained from the operations of the Fibersilk Company, and the expenses include suitable charges for preliminary operations.

This estimate is based on the operation of the projected two machine plant with a rated annual capacity of 900,000 pounds. This cost should be realized very early in the manufacture because the starting up expense and organization expenses, it is assumed, will be distributed over the first two or three years operation in the same manner as was and is being done in the case of the Fibersilk Company. The manufacturing cost would be somewhat higher in the event that only one machine would be installed at the start, because the general and overhead cost per pound would be noticeably increased in this case, and furthermore the cost of construction would be higher if only one machine were built at first and thereupon the second, as compared to building two cellophane casting machines at once.

It is possible that the cost of production would be somewhat reduced during the second year, but it does not appear that this can be taken into account in this project. The consumption of materials is figured reasonably close and it is not believed that any considerable saving can be made in the labor cost. On the other hand, a noticeable lowering of the cost of production should be expected the third year and thereafter, because by that

been charged off and the third machine would probably be installed and operating, which would reduce considerably the overhead and general expenses which are very high because of the large investment relative to the output. The investment per pound of cellophane produced per annum will be in the neighborhood of $2.00 so that obviously the charges for repairs, depreciation and general expenses must necessarily be relatively high per pound. It is believed that with present labor rates and raw material costs, the cost of production would probably go down to $1 per pound as soon as the manufacture if thoroughly established, and when the starting up expense and organisation expenses have been charged off. It is probable that the cost of production may be less than $1 per pound if a very large plant is constructed, but no calculations have been made in this connection because the markets for such sales have not yet been established. For operations during the next couple of years it is believed advisable on the basis of information obtained from the French plant to use the above cost of $1.13 per pound of sheet cellophane.

With respect to administrative expense, including preliminary organization expenses 7¢ per pound is assumed, which compares with the average of 8¢ per pound for Fibersilk during the year 1922. It is believed that the administrative expense should be slightly less for the cellophane operation than for the present fibersilk operation due to the enlarged business.

With respect to selling expense the average for Fibersilk for the year 1922 was 3¢. However, the Fibersilk Company's sales were considerably larger than the anticipated cellophane sales for the first year or two and furthermore the market was already established for the entire output of the silk plant before it was built, so that there has never been any problem of selling fibersilk of good quality. The total selling expense for fiber-

silk for the year 1922 was about $41,000, and it would seem advisable to assume that the annual cellophane selling expense for the first couple of years would be $60,000 or about 7¢ per pound. However, this is a matter of guess work because if the optimistic expectations are realized the output of the first cellophane plant could be sold without much sales effort. For instance, if only one large cigarette manufacturer could be interested the sales expense might then be only 3¢ per pound, but on the other hand if no large consumer could be found, but the output of the plant would have to be sold to a number of smaller consumers, the selling price might reach 10¢ per pound. The figure of 7¢ per pound is assumed reasonably conservative.

The total cost of sales per pound has therefore been estimated as follows:

Production Cost	$1.13	
Administration Expense	.07	$1.20
Selling Expense		.07
Total Cost of Sales		$1.27 per pound

It may be noted in this connection that the corresponding average cost of sales per pound of fibersilk for the year 1922 was $1.38, which comparison appears quite reasonable because information from the French interests, as well as the opinion of those who have studied the cellophane proposition, agree that the cost of cellophane should be somewhat less, but not very much less than the cost of artificial silk.

SELLING PRICE IN THE UNITED STATES:

The list selling price in France is 1.20 francs per square metre, trimmed sheets, or with certain quantity discount 1.11 francs, which at an exchange of 6½¢ per franc, gives $1.15 per pound. The cost to the American importers, Birn & Wackenheim, acting as agents for the French cellophane Company, laid down in New York, duty paid, is $1.47 per pound on the 6½¢ per franc exchange basis.

These agents have been selling cellophane to American consumers largely candy makers, in sheet form, principally cut to certain sizes, at the rate of usually around 10¢ per thousand square inches. However, some of the large consumers have obtained lower prices. The sales price per pound of cellophane corresponding to the various prices per thousand square inches is given on page 8.

In attempting to estimate the probable selling price for cellophane from the Amcridan plant, it is necessary to take a number of factors into consideration, but the estimated price is based practically on the present selling price which it is not believed would be materially changed if 900,000 lbs. per annum are sold as compared to the present sales.

In figuring cost it is necessary to consider that some customers will take the large uncut sheets, that is, sheets of full width of the machines, whereas other customers will require the sheets cut to a special size which requires an allowance for the cost of cutting. Further it is necessary to consider that while the yield of first quality appears to be very high and possibly more than 90%, it is necessary to assume that a portion of the output will be of inferior quality and must either be sold at a lower price or re-treated in a special portion of the plant in order to make it salable at best prices. This special treatment consists in dyeing, embossing, printing and manufacturing into cellophane for millinery purposes or manufacture of bags. There may be some differences of opinion relative to the necessity at the start in constructing and operating this portion of the plant, which may be for sake of brevity called, "Articles Plant". The writer is strongly inclined to favor leaving out this articles plant at the beginning and rather taking a loss on a relatively small output of inferior quality. However, those who have studied the subject in France appear convinced that the articles plant

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should be included because it is not only a paying proposition, but to some extent a necessity, and their opinion in this regard should probably prevail. However, this feature of the proposition need not be discussed in this report but can be taken up for consideration when the time comes to prepare detailed plans and estimates in the event that the cellophane option is exercised. For the purpose of estimating the probable selling price of cellophane, it is assumed that the material consumed in the articles plant will be taken at the same valuation as the transparent first quality cellophane which is not further treated. It is claimed by those who have investigated the subject, and based on French experience, that the investment in the articles plant is justified because it does more than convert the inferior quality cellophane into articles selling at as good a price as first quality cellophane. However, as a matter of conservatism, it is assumed that the entire output of the cellophane plant will have a sales value equal to that of the full size sheets sold to the largest consumers. This price has been estimated at 8¢ per thousand square inches or $2.11 per pound. Reference is made in this connection to letter of March 30th from Mr.Denham attached to this report as Exhibit "D". The estimates of probable return on investment are therefore based on the average selling price of $2.11 per pound, though this is considerably less than the prices paid by the smaller consumers, and also considerably less than the selling prices for the special cellophane products.

PROFIT ON SALES OF FRENCH CELLOPHANE DURING CONSTRUCTION OF AMERICAN PLANT:

It is of interest to consider this subject because the option agreement with the French interests says that if the duPont Company exercises the option the American Cellophane Company will have the exclusive right to sell French cellophane in the United States, and which will be of importance during the construction of the [illegible]. The sales agreement with the parent

gents in this country can be cancelled on three months notice and consequently the American Cellophane Company might commence to market French cellophane in this country, for instance July first. The American Cellophane plant would probably not commence to manufacture a marketable product in quantity before May 1934, and consequently would be marketing French cellophane in this country during a period of 10 months, which with the allotment in this country of say about 350,000 pounds per annum would be equivalent to sales of about 300,000 lbs. during this period. It is indicated that the present selling agents are importing cellophane at a cost to them in round figures of $1.50 per pound. Selling expense including cost of handling and storage, should probably not exceed 10¢ per pound, whereas the average selling price, after allowing for cost of cutting to special size, is probably not less than $2.25 per pound, indicating a possible net profit on these sales of 65¢ per pound, which would give a net profit of about $200,000 on these sales. It would seem reasonable to expect that the French interests should grant the same terms to the American Cellophane Company.

INVESTMENT

Exhibit "E" gives the estimate of cost of construction of a cellophane plant as prepared by Mr. Hope of the Engineering Department. However, the Engineering Department has recently advised that on account of increasing construction costs, the actual cost will probably be 15% higher than estimated, assuming the construction to be commenced in the near future and be completed the early part of next year.

In considering this investment attention is called to the informal understanding that the cellophane plant should be constructed on vacant land belonging to the Fibersilk Company at Buffalo, so that there will be no purchase of new land. Furthermore it has been informally agreed that a portion of the cellophane

plant, i.e. the portion of the plant required for the manufacture of the viscose solution and the general plant facilities will be provided by the duPont Fiberesilk Company because such arrangement will show a material saving both in construction and operation of plant. In other words, that portion of the cellophane manufacture which is identical with artificial silk manufacture will be undertaken, both as regards construction and operation, by the Fiberesilk Company. The detailed arrangements to be made between the American Cellophane Company and the duPont Fiberesilk Company are not discussed in this report because it is assumed that an equitable arrangement can be made acceptable to everybody concerned, because of the obvious financial and operating advantages. No serious difficulty should be found in this regard as the duPont Company has a 60% interest in the duPont Fiberesilk Company and will own 52% of the common stock and 60% of the preferred stock of the Cellophane Company. This investment may be summarized, as follows:

Investment by duPont Fiberesilk Co. for Chemical Plant	$266,325	
Shops	30,000	
	296,325	
Add 15%	44,448	
	340,774	
Cellophane Plant Cost less Land	$1,123,825	
Less estimated Fiberesilk Co. expense	296,325	
Est. bal. to be spent by American Cellophane Company	827,500	
Add 15%	124,125	
Total Cellophane Plant Expense for Cellophane Company	951,625	
Cellophane Articles Plant	370,600	
Add 15%	55,590	
	426,190	
Cost of Cellophane Plant for Cellophane Co.	951,625	
Cost of Articles Plant	426,190	
	1,377,815	
Cost of Construction Work by Fiberesilk Co.	340,774	
Total Cost all Construction Work		$1,718,589
Working Capital		300,000
Total Investment		$2,018,589
Investment in Cellophane Company		$1,677,815
Investment by Fiberesilk Company		340,774

Working capital is figured on the basis that the monthly output of the plant will be 75,000 lbs. at $1.2? per pound, giving a monthly expenditure of about $[illegible],000. The working capital should be sufficient to cover 3 to 4 months operation, or $[illegible],000.

The investment figures are considerably higher than assumed when the option agreement was negotiated. This is due mainly to the articles plant, which was not included in the preliminary estimates, and in part, to the cost of the special cellophane casting machines being considerably higher than previously assumed on the basis of very incomplete information; a substantial increase in the estimated costs is also caused by the recent 15% addition to construction estimates.

A very substantial reduction in the investment can be made if all or the greater portion of the special articles plant can be postponed until sometime in the future, this plant costing over $400,000. However, the major investment in the articles plant is stated by the commission to be practically a necessity sooner or later, and the decision whether or not to exercise the option should not be influenced materially by the question whether or not this articles plant is necessary immediately or whether its construction could be deferred until a future date when its relative necessity can be more accurately determined.

RETURN ON INVESTMENT:

First Two Years:

The probable return on the investment for the first couple of years is based on the sales of the entire output of the plant with the rated capacity of 900,000 lbs. per annum and the cost of preliminary operating and organisation expenses, distributed over this period. The estimate is conservative because liberal allowances have been made in estimating the cost of manufacture, while the estimated selling price is probably equal to the minimum price to-day and no profits are assumed from the investment in the [illegible] which is assumed will only get the value

of first quality cellophane from seconds and trimmings.

Estimated selling price per pound	$2.11
Estimated cost of sales per pound	1.27
Estimated net profit	.84

Net profit from sales of 900,000 lbs. $756,000.

The annual net profit is subject to New York State and Federal income taxes:

Net profit before taxes	$756,000
Less New York State Income Tax 4½%	34,020
	721,980
Less U.S.Income tax 12½%	90,148
Balance available for Surplus & Div.	631,832

In order to estimate the percentage return to the duPont Company on the investment it is not necessary to make any distinction between the investment made direct by the duPont Company and the portion of the total investment made through the duPont Fiberslik Company, because the duPont Company has a 60% interest in the Fiberslik Company and is also expected to provide 60% of the necessary capital in excess of the first million dollars.

The estimated cost of the total construction work is $1,718,589, which might turn out to be ample for the purpose. The Engineering Department is not prepared at this time to make any reduction in this estimated cost (inclusive of the 15% addition) and in fact they are somewhat apprehensive that construction costs will continue to go higher, so that if there is any delay in completing the plant, this estimate may be too low. With respect to working capital, $300,000 seems sufficient. However, as a general rule new industries are found to use larger amounts of working capital than originally estimated. For these reasons the estimate of $2,018,589 is probably a minimum as compared to what the books will probably show when the plant is in full operation, and this is exclusive of surplus earnings carried in the investment.

On the other hand, as shown in the preceding section of this report there would be a certain profit resulting from the sale of French cellophane during the --

which net profit might amount to $200,000. This profit will no doubt off-set the factors tending to increase the investment over the estimate, and for the purpose of estimating the return on the total investment, the latter has been taken at $2,000,000 for the first two-machine plant as a conservative figure for both construction and working capital.

Estimating a net profit of $831,832 on the total investment of $2,000,000 gives a return to the Cellophane Company of 31.6%.

However, it is necessary to consider the du Pont Company's investment, which is as follows:

52/80 of $1,000,000	$867,000
60% of the balance of the investment (Fibersilk & duPont)	600,000
Total investment for duPont Company	$1,467,000

The first million dollars will be provided through the sale of common stock of the company, and the second million dollars through the sale of preferred stock, which presumably will carry a 7% dividend. On this basis the return to the duPont Company is as follows:

Net profit available for dividend and surplus	$831,832
Preferred dividend 7% of $1,000,000	70,000
Balance available for common dividend	761,832
du Pont share preferred dividend 60% of $70,000	42,000
duPont share of earnings on common stock 52% of $761,832	292,153
Total profit earned by duPont Company	$334,153
Percent return to duPont Company on the investment of $1,467,000	22.8%

The return on the investment is actually 7% on the preferred stock issue of $800,000 and 33.7% on the investment of $867,000 in common stock. This shows that the preferred stock can be retired out of the earnings made during the first two years, after which the remaining capital stock should show earnings in excess of 30%.

Earnings after the Second Year of Operation:

During the third year of operation the earnings should increase appreciably because about the middle of that year the preliminary organization and starting up expenses will have been charged off completely. Furthermore even if only a fair success in developing new markets is realized, it is believed that there will be sufficient reason to install the third cellophane casting machine. This would materially decrease the investment per pound of cellophane produced, because the present plan of construction provides for buildings large enough to house three machines and take care of the output of the three machines, whereas only two machines will be installed at the beginning. The installation of the third machine will reduce the general works expense, maintenance and depreciation charges and administrative expense per pound of cellophane, beside tending to lower operating costs in general. Therefore assuming the market price to remain practically unchanged the future earnings subsequent to the second year should be materially greater per pound of cellophane sold than estimated above, and especially the return on the investment in the future should be higher than estimated above.

DISCUSSION:

The French interests during the negotiations relative to the cellophane proposition advanced particularly four claims which appeared very important to the du Pont Company.

One of the claims was the identity of the viscose solutions used in the manufacture of cellophane and fibersilk, which is of importance relative to cost of construction and operation of a cellophane plant. This claim has been found to be incorrect when taken literally but for practical purposes the claim is sufficiently correct to concede this claim as being practically substantiated.

[redacted]

Another claim was that the name "cellophane" was suitably protected by registered trade-mark in this country though it was understood that there was a temporary controversy with a former agent, but which would at an early date be settled in a satisfactory manner. It has been ascertained that the trade-mark situation has been handled carelessly by the French interests and with quite insufficient attention so that the trade-mark situation is not satisfactory and only a legal process may clear this situation in a satisfactory way. However, it is not believed that the trade-mark "cellophane" is of any particular importance in that it is not a very valuable name. In the writer's opinion this matter need not receive further attention except that the French interests should be required to bring this matter to a final conclusion at the earliest practicable time and at their own entire expense.

A third and very important claim was the establishment of a large market in the United States at a very attractive price and with prospects of future greatly increased sales. This claim has been entirely substantiated.

The fourth and an exceedingly important claim which decidedly influenced the terms of the option agreement, was that the cellophane process was protected by United States as well as foreign patents. This statement is entirely incorrect. The plain fact of the matter is that at this time there is not any patent protection of the slightest importance on either the process, the apparatus used in manufacture or the product cellophane. In this regard the duPont Company has been decidedly misled by the French interests, though probably in entire good faith, but it is not to be denied that the French interests in this connection have shown a rather inexcusable lack of foresight. It is very much to be regretted that the French representative who negotiated with the du Pont Company's representatives made such exaggerated and un-

warranted claim without any prior reasonable investigation on his own part and which decidedly influenced the duPont Company's representatives during the negotiations. The writer feels a keen regret in this connection because in similar cases of investigations, this Department invariably investigates as thoroughly as possible the patent situation prior to the execution of any contract or option agreement. However, in this case this Department did not have an opportunity to make an investigation of the patent situation until the terms had been negotiated and the option agreement executed, because the offer from the French interests was only submitted very shortly before the departure of the French representatives from America. Under the circumstances reliance was placed on the accuracy of the French claims due to the very satisfactory partnership with them in the duPont Fibersilk Company.

It is true that new patents may be secured. However, as stated above, the applications for patents have no value in themselves because they are kept confidential in the Patent Office until issued and no infringement can be claimed until the patents have issued. Therefore no patent protection will be obtained until the new patents are issued which will be probably at least two years hence. It is sometimes possible to secure a patent from the United States Patent Office within a year, but is very infrequent and haste is inadvisable unless the issue is very clear. It appears entirely possible that other parties may construct a cellophane plant and commence its operation before the new cellophane patents can be published, and at such time the only result will be either a compromise with the competing company or an expensive lawsuit with doubtful outcome. It is believed that the French interests could have obtained at least one and possibly several valuable patents if they had submitted their United States applications as soon as the inventions were made, and certainly not later than 1919. It is questionable whether really valuable

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patents can be now obtained, that is patents so strong as to prevent competition. It is indicated that an infringement suit would not by any means be an easy and inexpensive suit to win. The pending process patent application will probably be allowed but its commercial value is therefore problematical.

The writer is therefore compelled to take the position that the French interests are or were decidedly mistaken relative to important claims made for their cellophane proposition and their terms as stated in the option agreement should not be accepted without qualification. It is quite true that the value of the "know-how" is exceedingly important. This in itself might be of sufficient importance so that it might be worth while to take a chance on the improbability of serious competition in this country. However, it does not appear to be good business for the duPont Company to pay the French interests $400,000 practically in cash and risk a total of practically $1,500,000 (inclusive of above payment) in the manufacture of a new specialty product, the profitable returns on which justifying above payment are predicated on the practical absence of serious competition on the part of other manufacturers either in this country or other countries.

If the duPont Company were dealing in this case with an American company there is no doubt that the proper thing to do would be to discuss this matter with the owners of the process in order to negotiate modified terms for the duPont Company and more appropriate in view of the patent situation. The writer is not prepared to express an opinion what to do in this regard with the French interests because of lack of knowledge of the French situation and acquaintance with the principal French parties to the agreement. This matter should first be discussed with Messrs. Blum of New York who are very close to the French interests.

It is strongly recommended that if the option is exer-

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cised by the duPont Company it should be on the condition that the French interests should pay one-half of the expense relative to any and all infringement suits relative to cellophane manufacture, and which the American Cellophane Company consider should be undertaken. Considering the stock ownership the French interests would actually pay 74% of the cost. This obligation of the French interests should probably be limited to a maximum period of ten years from the date the option is exercised. This period is suggested because it might take three years before the principal patent applications have been issued and thereafter it might take three or more years to conclude infringement suits, so that a six year period should be the minimum.

It would be entirely fair to both parties to the agreement that the French interests should return $100,000 worth of common stock of the American Cellophane Company to the duPont Company in the event that serious competition in the sale of cellophane should develop and which could not be stopped by infringement proceedings. In other words, that the French interests should not return any of their $400,000 common stock payment if the prosecution of infringers of the cellophane patents is concluded successfully, but failing to stop such competition they should return $100,000 to the duPont Company so that their payment for the process will then be $300,000.

It is only fair to add that in one respect the present terms are better than anticipated inasmuch as the French interests now concede to the American Cellophane Company the manufacture of photographic film base. This is very gratifying but no dollar value can be placed now on this concession because cellophane film is as yet entirely in an experimental stage.

With respect to the financing of the American Company the French interests have agreed in a communication to Col. W.C. Sproance to subscribe to additional capital through a 7% preferred stock issue up to 40% of $500,000, and it is believed that they will also make

RECOMMENDATIONS:

This Department is satisfied as the result of a comprehensive investigation that the manufacture of cellophane in the United States is entirely practicable and that investment in such manufacture should be very attractive for duPont Company. It has, however, been ascertained that the patent protection on the cellophane product and process is practically lacking and that it is problematical to what extent sufficient patent protection can be obtained. There is at present a considerable speculative element in this proposition relative to possible competitive cellophane manufacture, and the payment to the French Company under the terms of the option agreement is not justified in the light of present information. It is therefore recommended that the option to acquire the cellophane process for the United States as a joint enterprise with the French interests on essentially the terms as described in the option agreement executed January 6th,1923 should be exercised,

PROVIDED the French interests undertake to do all reasonably within their power to deliver a clear title to the cellophane trade-mark to the American duPont Cellophane Company,

AND FURTHER PROVIDED that the French interests in lieu of patent protection at this time, contrary to their definite claims in this regard on which basis the present terms were negotiated, will agree to protect the American duPont Cellophane Company suitably relative to competitive cellophane manufacture, such protection to the American company being at least an agreement on the part of the French interests to pay one-half of all costs which the AmericanCompany may find necessary to incur in proceedings against competitive cellophane manufacturers or sellers in the United States, such division of expenses to extend over a suitable term of years, and an attempt should be made to have the

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French interests agree to a return of $100,000 worth of common stock of the American Company if and when it shall prove to be practically impossible to force discontinuance of competitive sales of cellophane in the United States,

AND PROVIDED FURTHER that the French interests will agree to provide $133,300 for 8/30 of $1,000,000 common stock and 40% of the capital required in addition to the first million dollars, which at this time is estimated to be about $1,000,000 so that the total French commitment will be approximately $533,300, $400,000 of which would be in the form of bonds, notes or preferred stock,

AND PROVIDED FURTHER that the French interests will appoint the American company as early as practicable as their exclusive selling agents for cellophane in the United States, the terms and conditions to be at least as favorable as those now enjoyed by the present American agents.

Respectfully submitted,

FRANCIS P. GAINES

Director

EXHIBIT "A"

Wilmington, Delaware
April 10, 1923

DR. FIN SPARRE:

Supplementing my letter to you of April 17th regarding the Trade Marks CELLOPHANE and LA CELLOPHANE, I beg to advise that the present status of the ownership of these Trade Marks is as follows:- The French concern is the registered owner in this country of the Trade Mark CELLOPHANE and Euler is the registered owner of the Trade Mark LA CELLOPHANE. From the information furnished me, it is apparent that the use of the Trade Mark CELLOPHANE in this country antedates the use of the Trade Mark LA CELLOPHANE, so that should Euler attempt to use the Trade Mark LA CELLOPHANE, or to interfere with our use of the Trade Mark CELLOPHANE, we would have little difficulty in having Euler's Mark of LA CELLOPHANE stricken from the records by means of cancellation proceedings.

G.D.Hopkins

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EXHIBIT "B"

VALIDITY, SCOPE, AND INFRINGEMENT OF CELLOPHANE PATENTS.

The Cellophane U.S. patents which have been granted, except those relating to photographic films, are numbered, dated, and entitled as follows:

981,368	Jan. 10, 1911	Process for the continuous manufacture of cellulose films.
982,487	Jan. 24, 1911	Coffered articles made from cellulose films.
991,267	May 2, 1911	Apparatus for the continuous manufacture of cellulose films
1,002,634	Sept. 5, 1911	Manufacture of cellulosic films
1,049,658	Jan. 7, 1913	Hoppers for producing cellulose plate and films.
1,266,766	May 21, 1918	Composite cellulose film.

In addition to the above identified patents an application on the use of glycerine in cellophane has been filed in the U.S. Patent Office on Jan. 16, 1923 under Serial No. 613,042 and two other applications are about to be filed, one of these cases (Case A) covering the drying apparatus now used by the French Cellophane Co., and the other (Case B) covering various alternative procedures for converting a viscose solution into a transparent cellulose film.

Having studied the above mentioned patents and applications, and compared them with prior patents and prior publications relating to the manufacture of cellulose films, etc. my conclusions may be stated as follows:

I. Cellophane patents.

(a) Validity. - Some of the claims of these patents are probably invalid (for example claim 1 of patent 981,368, the single claim of patent 991,267, and the single claim of patent 1,049,658); and other claims are of doubtful validity.

(b) Scope. - All of the claims of the several patents are narrow in scope, so narrow, in fact as not to cover or protect the essential features of the process or apparatus actually used in the manufacture of cellophane.

(c) Infringement. - The inventions described in the above-numbered patents, as well as the procedure actually followed in the French process of making cellophane, can very probably be used in the United States without infringing any unexpired U.S. patent.

8. Patent applications.

(a) A(B) Validity and Scope. - These aspects of the claims must be considered together while the ultimate claims are still indeterminate. It is improbable, in view of the well developed prior art in existence, that valid claims of sufficient scope to be of substantial value can be obtained in either case A. or B. It seems probable that valuable claims can be obtained in the glycerine-process application, but it is also probable that further investigation will show that substances other than glycerine can be introduced into the cellulose film in the gel state to prevent the development of brittleness, etc. during the drying of the film. It would be difficult, if not impossible, for Brandenberger to secure a broad enough claim in his present glycerine process application to cover these substitutes for glycerine.

(c) Infringement - No unexpired U.S. patents, so far as I have found, would be infringed by using in the United States the inventions described in general in the three above mentioned patent applications.

I agree in the main with the conclusions set forth by Mr. Geo. Rocker in his "Report on Investigation of Cellophane Patents", and with the opinions expressed by Mr. Wm. S. Pritchard concerning validity and scope of these patents, and infringement of other unexpired U.S. patents.

Possibility of infringement of patent 947,457 dated Jan. 25, 1910 to Ratigner and Pervilhac by the Cellophane process has been discussed by Mr. Rocker and by Mr. Wm. S. Pritchard. The two claims of this patent are limited to a treatment of the film while it is in a transversely stretched condition; to constitute infringement, the corresponding treatment of the cellophane film would have to be carried out while it was in the transversely stretched condition contemplated in this Ratignier et al patent. The Cellophane film is undoubtedly stretched transversely to some extent due to the frictional resistance of the cylinders to transverse shrinkage of the film, but it is probable that the claims of the Ratignier patent had reference to the greater degree of stretching resulting from the use of parallel cords under tension near each edge of the film to positively prevent or retard transverse shrinking, and not to the stretching due to mere frictional resistance of the cylinders. The Stearn and Lehner patents do not refer to a treatment of the film while it is stretched transversely, and therefore do not in themselves invalidate the Ratignier et al claims.

The most promising aspect of the Cellophane patent situation appears to lie in the protection which may be afforded by a patent on the use of glycerine to modify the physical characteristics of the cellulosic film, and by the development of other substances which can be used to good advantage as a substitute for glycerine. It is

[redacted]

possible for instance by filing a supplemental oath at the time an amendment is filed in the glycerine application, to add claims directed broadly to introducing into the cellulose film, while in the gel state, a relatively non-volatile, water-miscible, liquid capable of imparting pliability to the film, but it is probable that the Patent Office would object to such a broad claim on the ground that there did not exist in the specification as filed, adequate grounds to support such a claim, the original specification not having indicated that any substance other than glycerine could be used successfully.

Any patent applications which may hereafter be filed to cover the treatment of cellulose films with substitutes for glycerine could not properly contain claims broad enough to include glycerine; it is not improbable, however, that improvement patents could be obtained, as the result of further research along this line, which would afford satisfactory protection on the use of glycerine and its equivalents or substitutes.

A valid product patent covering cellophane containing glycerine cannot now be obtained in the United States for the reason that such cellophane has been in public use and on sale in this country for more than two years.

If the only practical way of producing cellophane as a commercial article is by introducing glycerine or its equivalent into the film while the latter is in the gel state, then the acquiring of a valid patent covering this step would secure to the owner of said patent an effective monopoly on the manufacture of cellophane.

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EXHIBIT "C"

REPORT OF INVESTIGATION BY CHEMICAL ENGINEER

From a careful study of the United States patents owned by the Cellophane Company, existing United States patents covering similar processes and the artificial silk patents on file at the Viscose Company, I have arrived at the following conclusions:

First - the patents owned by the Cellophane Company give very inadequate protection to the processes used, for the following reasons:

(a) - Without exception the claims in these patents allowed by the Patent Office are very narrow and non-exclusive.

(b) - The existing patents would not prevent the competitors from manufacturing cellophane by processes which would be similar to processes disclosed by Stearn, Lehner and others in patents which have expired.

(c) - None of the patents and notably the process patents do not cover the processes as actually practised in the Cellophane Company's plant in France today.

(d) - There are no outstanding United States patents which would interfere with the manufacture of cellophane unless we except a patent to Batignier and Cervilhac, 947,487 of January 25th, 1910. Mr. Pritchard in his report to the Cellophane Company expressed an opinion that this patent might be basic and might be infringed by the Cellophane processes. I am, however, inclined to believe that the disclosures of Stearn and Lehner which ante-date this patent cover essentially the same processes and consequently a claim for infringement of the latter patent could not be sustained in court.

(e) - I am very certain that film can be manufactured from viscose by processes differing sufficiently from the cellophane processes to permit of patent protection without violating or infringing cellophane processes but using in part processes disclosed earlier and in patents which have expired. In other words, not only could a competitor manufacture by processes already disclosed and the patents of which have expired, but by new or modified processes which in turn would not in any way resemble the present cellophane processes close enough to permit of a claim for infringement.

It is evident therefore that if the du Pont Company were to enter into the manufacture of cellophane, there would be no danger of infringing existing American patents. On the other hand, the patent protection offered by the patents owned by the Cellophane Company would not protect the du Pont Company adequately against competitors.

Second - a study of the proposed new patents for which applications have or are to be filed, has suggested the following:

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(a)- The application for the addition of glycerine to the film while in the gel form: I believe that this patent application will be granted because so far as a study of patent literature has shown, there are no outstanding patents which would interfere with the granting of this application. There are however the following points to consider:

1. The addition of glycerine to the film in the gel form is designed primarily to put into the film before drying a non-volatile neutral transparent liquid which would keep the film in a plastic or gel form during drying and would avoid the danger of removing from the film all of the liquid constituents, water or glycerine, thus preventing the film from becoming brittle and breaking during drying. However, it is true that the film could be dried under carefully regulated conditions and possibly at lower temperatures and with a control of humidity in the drying apparatus so that the water content of the film would never be reduced below 8 or 10%, which, I understand, is the danger point in drying the film.

2. There are undoubtedly other substances such, for instance, as the chemical homologues of glycerine, viz., glycols or other poly-hydric alcohols, etc. which could be substituted for glycerine and which would give exactly the same result. The application as filed confines its claims solely to glycerine and my understanding is that since this application has been filed the claims cannot be brought to include other compounds. If the du Pont Company entered the Cellophane business it would be necessary ultimately to cover the use of other substances than glycerine in order to obtain full protection.

3. While the addition of the glycerine to the film in the gel state is designed primarily to promote efficient drying, the presence of the glycerine in the finished film tends to keep the film plastic and transparent. It has therefore a double function. No attempt has been made to apply for a patent covering the presence of glycerine in the finished film and I believe no application for such a patent can be made because a product, cellophane, containing glycerine has been sold in the United States for two years or more. It is evident therefore that the glycerine patent if granted, while it would afford protection for what is known as probably the best procedure in the manufacture of cellophane to accomplish proper drying and give the film its qualities of suppleness and transparency, a competitor could arrive at almost the same result by drying the film without glycerine and adding the glycerine afterward.

[redacted]

(b) - The proposed application for a dryer patent: I believe that the claims which have been proposed for a new dryer patent are exceedingly weak and probably will not be allowed by the Patent Office or, if allowed, in such a modified form that they will be very much limited in scope. The principal claim in the dryer patent apparently is a claim for a flanged roll and the reason advanced in making this claim is in direct opposition to the reason advanced in making the principal claim in the Brandenberger United States patent #1,002,654 of September 5th, 1911.

One of the patents cited against this original Brandenberger patent was a patent to Charles E. Moss, #876,007 of January 7th, 1908 which shows upper rollers driven by friction on lower rollers, these lower rollers being flanged so that there was a space between upper and lower rollers and no pressure would be exerted by the upper rollers on the material passing between the rollers. In other words, Moss' idea was substantially the same as the one in the new Brandenberger claim, except that the flanged rollers are reversed and it is very certain that the Patent Office will not grant a claim to Brandenberger for this injunction.

The other principal claim is a claim for a slipping drive on the lower rollers of the drying apparatus so that the film during the drying process cannot be stretched by the movements of these lower rolls. This claim is so weak that I am certain the Patent Office will not give it consideration. As a matter of fact, the drying rolls in the cellophane drying apparatus are so heavy that they could not be turned by the weak undried film passing over them, and if driven at all, a slipping drive would not accomplish the result. It would be necessary to drive them absolutely positively.

In conversation with Mr. White I gathered moreover that these lower driving rolls are actually driven positively all of the time and that the slipping of belts is merely hypothetical. In the claims outlined for this patent there is also a statement to the effect that the drive on these lower rolls is disengaged after the film has been strung completely around the rolls and that the movement of the film is then determined by the turning of the mandrill at the outlet end of the machine. Mr. White states that there is no equipment for disengaging the drive on these lower rolls and his recollection is checked by Mr. Hare. It appears therefore that a claim has been made for something which is not actually being used.

It appears that the claims advanced are supposed to cover the only feasible method of drying cellophane film. I cannot see why it would not be just as feasible to operate a dryer in which the rolls from one end of the dryer to the other are operated either at successively slower speeds or with successively different diameters of rolls so that as the film passes through the apparatus, it moves slower and slower, thereby compensating for the shrinkage that takes place in drying. This is a procedure which has been used in the manufacture of film from cellulose esters where exactly the same shrinkage proble

is encountered. I believe that anyone manufacturing film from viscose could safely dry the film with a machine of this type without infringing the proposed patent. It is evident therefore that the claims in this patent will probably be narrowed down by the Patent Office to claims covering only very special features, that the claims are weak and afford no protection and that substitute processes can probably be used which will give as good if not better results.

Proposed Application for a Process Patent

(c) - It is very evident that this proposed third patent covers too great a variety of procedures in an attempt to obtain perhaps slight protection for processes which have been essentially disclosed in expired patents. In the first place, an attempt is made to cover the actual succession of setting baths used in the process. The two setting baths used have already been covered by expired patents, one to Stearn and one to Lehner and there is no doubt in my mind that slight variation in the succession of these baths or a slight difference in composition would effect exactly the same thing and yet not make the user liable to infringement if this patent should be granted. It will be very difficult to obtain a patent on this succession of baths as the disclosures are not new but merely rearranged processes disclosed in earlier patents.

In addition to the claim for a certain succession of coagulating baths, there is a claim for a desulphurizing bath which follows the sulphuric acid bath. The Lehner patent #724,020 of March 31st, 1903 discloses this very step in conjunction with a sulphuric acid coagulating bath. This claim will undoubtedly be thrown out by the Patent Office and if it is not thrown out by the Patent Office, there is absolutely nothing to prevent anyone from working the process under the expired Lehner patent.

A third procedure for which a claim is advanced is for the use of a bleaching bath of sodium hypochlorite followed by a bath of a mineral acid for discharging the bleach. I can see nothing novel in this which would warrant the Patent Office to allow the claims advanced and if the Patent Office did allow these claims, they would either be exceedingly limited in extent or they could be infringed with impunity.

Another process which is claimed is a process for adding dyestuff to the viscose solution which dye would not be affected by the subsequent chemical processes and would leave a dyed film as the final product. A recent patent which has been assigned to Courtaulds, Ltd., already claims the same idea. It is probable therefore that this claim will not be allowed by the Patent Office. Furthermore, I understand from Mr. White that the process claimed is not being used by the Cellophane Company and so far as he knows, has never been tried. Another claim advanced is for the dyeing of the film during the process of manufacture and before drying, this dyeing to be done preferably in place of the bleaching treatment specified in one of the variations of successions of baths. This is such an obvious possibility that I cannot see how a patent granted on this claim could be sustained in court.

Summarizing, I should say that the claims proposed for the process patent, even if granted by the Patent Office, would afford practically no protection against infringement of the process. Furthermore, I am convinced that the Patent Office will either not allow the majority of these claims or will limit them to a form which makes them practically worthless.

Summing up the whole situation relative to cellophane patents, it is my opinion that the cellophane processes can be worked in this country without infringing existing American patents which have not expired. The existing patents owned by the Cellophane Company afford no protection against infringement. Of the new patents proposed, the patent covering the addition of glycerine to the film in the gel form will probably be granted by the Patent Office and I should consider this as a very strong patent, provided the patent covered more broadly the use of substitutes for glycerine. However, the same result can be obtained by drying without the use of glycerine by adding the glycerine subsequent to drying but at somewhat greater cost.

The claims for the dryer patent to my mind are worthless and the same is true of the claims for the proposed new process patent. The actual commercial value of these patents is therefore limited to the value of the single glycerine patent and the value of this would be determined by the difference in cost between drying under the conditions necessary if glycerine is omitted from the film before drying and drying under the conditions necessary if glycerine is actually introduced into the film before drying. This commercial advantage would to my mind not exceed more than two or three cents per pound of film produced. However, this conclusion might be modified appreciably if in actual practice it were found that the percentage of first quality cellophane produced would be materially decreased if the film would dry without introducing the glycerine previous to drying.

George Porter

XHIBIT "D"

(C O P Y)

Buffalo March 30th, 1923

Dr.F.Sparre
Director, Development Department

Dear Dr.Sparre:

CELLOPHANE

With reference to your letter of the 21st, will you please consider the following as a supplement to the report that I have already given you:

Question No.1 Cellophane in sheets 1000 square inches--price 8½¢ per 1000 square inches; same cut to size, 5% additional; same dyed or white embossed, 10% additional; same dyed and embossed, 15 to 20% additional.

All of the above prices based on Cellophane known as 35S.

Question No.1-a Provided we go into the manufacture of Cellophane, it would seem a great advantage as far as sales are concerned to first put in one machine, perfecting our product on this one machine, then by the time our second machine would come in (from the information we have already secured) I feel positive we would be able to market the production from the two machines without reducing the above prices.

Question No.1-B I do not think it is necessary to have what the French call first and second qualities. We should sell all of these two qualities as first quality.

For your information, this is really what the French are doing. They have certain customers to whom they sell the second quality entirely, calling same first quality.

With reference to what the French term "Third quality", we should handle this in the same manner that the French handle it. They fabricate this third quality into articles or small pieces for the crystallized or preserved fruit trade, and we should be able to get a minimum of 8½¢ for this quality cut to size -- this leaves about ½ of 1% which would have to be cut up and sold as waste. This could be sold at approximately 3¢ per lb. The majority of this so-called waste comes from the fabrication of the Cellophane.

You will note that in the above prices where we charge 5% additional for fabrication or cutting to size, this 5% is more than ample to take care of the waste, even if we should burn it up. In other words we should still be averaging 8½¢ per 1000 square inches on the plain white sheet.

Question No.2 Our estimate for the cost of the plant should by all mean include dyeing and embossing, and a room sufficiently large for making bags. The millinery end of the business I think should come later -- it is not necessary now. It is essential that we should have dyeing and embossing machines, for two reasons,-

First, the American trade now absorbs quite a lot of dyed and embossed Cellophane.

Second, quite a lot of Cellophane leaving the spinning machines is not first quality; however, by taking this poor quality, putting it through the dyeing machine and embossing it, it can be sold as first quality, dyed and embossed Cellophane.

Question No.3. The average selling price which I have given you really does not have much bearing on the question of whether or not Cellophane is sold in large sheets or sheets cut to size; that is, as far as cost is concerned. Our 5% additional charge for cutting to size will far more than offset additional manufacturing cost for doing the work. This 5% additional will also more than take care of any waste or clippings left over.

With reference to your letter of the 28th, the above report takes care of the questions you have brought up.

I expect to be in Wilmington on Tuesday of the coming week. You will have had time to go over my letter by then, so I will call in and give you any additional information which you may require.

Yours very truly,

J.S.Dunbar

Sales Manager

EXHIBIT "E"

C O P Y

March 17, 1923.

C. Min Spurrs, Director
Development Department

CELLOPHANE INVESTIGATION

Dear Sir:

Referring to your instructions dated January 12, 1923, it was my understanding that the subject assigned to me in connection with this investigation was to collect sufficient data for estimating the cost of a works for manufacturing this material in America, the location under consideration being on the property of the duPont Fibersilk Company at Buffalo, New York.

I sent you from Paris on February 8th a report giving a general description of the works located at Bezons, France, where I obtained our data. As explained to you orally upon my return, Howard J. White and I prepared a joint report giving a detailed description of design and operation of the plant, which it would be necessary to have typewritten. This Mr. White is attending to in Buffalo and when completed he will submit to me for any corrections or suggestions, after which we will submit to you jointly as we believe it could be done to a better advantage in this way than by making individual reports on account of the duplication that would be necessary if separate reports were submitted.

In order that Col. W. C. Spruance could discuss this matter with Mr. Charles Gillet and others interested while we were in Paris I made a tentative layout and estimate, making certain changes in the estimate as made at Lodi in December, these changes being principally in the cost of the machines which I found after visiting Bezons to be very much more expensive than we had thought. This figure used in the original estimate was $60,000., whereas, I figure they will cost $135,000. each to install. The total amount of this estimate as prepared was $1,132,300., not including dyeing and embossing, millinery room, printing room, etc., which would be necessary if we went into the manufacture of specialties. Therefore, I am attaching herewith an estimate dated February 17th, based on Layout No. 1, photostat copy herewith, amounting to $370,600., showing the additional cost for same.

Since my return I have made further studies and checked over the estimate which was made in Paris and have made further revisions, which makes this estimate now about to $1,134,825., exclusive of dyeing and embossing, millinery room, printing room, etc. If it is desired to consider these items the estimate of February 17, 1923 should be used in connection therewith.

I am attaching herewith copies of estimate based on layout No. 2 as shown on photostat attached. While this estimate is based on detail information obtained in France, it should be borne in mind that we have only had time to make a tentative layout showing how this layout can be arranged on the property of the duPont Fibersilk Company at Buffalo. Further study and discussion with their representatives will no doubt develop modifications as to detail so that when a detail estimate is made there will be many

modifications. These, however, should not vary from the approximate estimate more than 10% either way.

The estimate is based on prices of labor and material now prevailing.

Location for the garage, which is included in the estimate, is not shown on any of these layouts as it is thought advisable to determine this location after discussion with the Fibersilk Company, because it may be possible that they would agree to permit the extension of their present garage so that it may be used by the Cellophane Company.

In the item covering cost of land there is not included anything for the land on which the broad gauge track will be constructed and it will be necessary, therefore, to make some arrangements with the duPont Fibersilk Company in the way of an easement or otherwise to take care of this item.

On page 3 of the estimate dated March 17th we show certain items which would be built by the duPont Fibersilk Company and service sold to the cellophane plant, amounting to a total of $266,325. In this amount we have not included any proportion of the present investment, such as outside lines, railroad tracks, power house apparatus etc., which would be used in connection therewith.

This layout has been prepared on the basis of occupying portion of the duPont Fibersilk Company's property situated between the southerly property line and the southerly side of Unit No. 2, as this location seems to be the most logical for the reason that it will cost less for construction and also brings all of the service facilities which the Fibersilk Company will be called upon to furnish in the same area as that used for Fibersilk.

Very truly yours,

OPERATIVE ENGINEERING & DESIGN DIVISION

W.R.Hope

March 17,1923

APPROXIMATE ESTIMATE
FOR
CELLOPHANE PLANT TO MAKE 3000# PER 24-HR.DAY
BASED ON LAYOUT #2

Pulp & Caustic Storage	$ 8,000.00
Chemical Building	
Same as Unit #1 at Buffalo.	150,000.00
Carbon Bi-Sulphide Storage	13,000.00
Ripening Room,	
Same as Unit #2 at Buffalo, except omitting the Johnson Filters	55,000.00
Spinning Bath Room, Ammonium Sulphate, Acid and Glycerin Storage, Glycerin Concentration and Bleach Towers	45,000.00
Cellophane Building	
Brick and steel building 70'x250'x16' high, equipped with heat, light, ventilation, fire protection and two cellophane machines with room for a third	350,000.00
Ventilating System and Fume Stack.	35,000.00
Cutting and Inspection Room, Building(50'x70') one story, brick and steel construction, equipped with heat, light, sprinklers and shears	28,000.00
Finished Material & Roll Store House, Building (36'6"x75'0") one story, brick and steel construction, equipped with heat, light and sprinklers	15,000.00
Office, Building(25'x96'6") brick construction over factory building, heat, light & fire protection	21,000.00
Laboratory, Building(50'x36'6") one story, brick, heat, light and fire protection and apparatus	18,000.00
Change House & Locker Room, Congulating Bath House and storage, etc. Building will be built of sufficient size for housing apparatus if four future machines are installed.	13,000.00
General and Chemical Store, Brick & steel building, 75'x80' one story; heat, light and fire protection	20,000.00
Garage, Frame and iron building.	5,000.00
Power House, Same as Unit #2 Buffalo with new stack	150,000.00
Water Supply, Distribution Lines 25,000.00 Filter Plant, Intake pumps, etc. 43,825.00	68,825.00
Sewer Lines	30,000.00
Septic Tank	8,000.00
Additional Roads	2,500.00
Bread Lines Track, Spur from tracks of Fiberslik Co.	6,000.00
Air Lines	2,500.00
Brine Lines	5,000.00
Process Lines	5,000.00
Electric Lines & Transformer Station changes	22,000.00
Steam Lines	18,000.00
Shops, Addition of 40'x80' to present Fiberslik Shops	30,000.00
Land - 5.5 acres @ 2000.	11,000.00
Total	$1,134,825.00

Included in the above total are the following items which would be built by the duPont Fibersilk Company and service sold to Cellophane plant:

Power House	$150,000.00
Water Supply including distribution lines, filter plant, intake, pumps, etc.	68,825.00
Electric Lines & Transformer Station	23,000.00
Steam Lines	18,000.00
Air Lines	2,500.00
Brine Lines	5,000.00
	$268,325.00

There is an item for Shops which might be classified with the above items as service, but which can also be classified under cellophane management. This amounts to 30,000.00

If it is decided that the two plants will not be operated separately and distinct from each other, but by one company, then there is included in the estimate above the following item which could be eliminated and use made of facilities now at Fibersilk Company's Buffalo Plant -

Land 11,000.00

Referring to the item for Water Supply covering distribution lines, Filter Plant, Intake, Pumps, etc., it should be noted that a recent estimate for appropriation for Water Supply for Fibersilk includes a proportion of cellophane requirements for two machines amounting to 37,825.00

When #3 Machine is installed it will be necessary to make the following expenditures for Water Supply -

1 - River Pump	2,000.00
1 - Pump at Power House	3,200.00
2 - Filters with additional Reservoirs and Sedimentation Basin	20,000.00
1 - 16" line from Office to Sedimentation Basin	10,000.00
	$35,200.00

February 17,1923

APPROXIMATE ESTIMATE FOR ITEMS
NOT COVERED IN ESTIMATE OF DECEMBER 13,1923.

CELLOPHANE

Dyeing & Embossing
Building 70' x 100' with heat, light and sprinklers and ventilation, with one machine for glueing 3 sheets, one dyeing machine for black, one machine for light colors, one machine for washing out glycerin, two small machines for dyeing and two embossing rolls; also 3 glueing and vaporising machines, one of which is for pharmaceutical purposes $165,600.00

Millinery Room
Building 70' x 125' with heat, light and sprinklers and A.&E.(This A.&E.is very approximate) 78,500.00

Printing Room
Building 50' x 135' with heat, light and sprinklers and two printing presses with all tolls and equipment 52,000.00

Store & Shipping Room
Building 50' x 110' with heat, light and fire protection; also storage racks and trucks 38,000.00

Articles Room
Building 70' x 110' with heat, light and sprinklers, with tables, benches,etc. 38,300.00
Total 370,800.00

Note:- The original estimate has an item for Finished Store.This appears as roll storage on the plan so that if it should be decided to only cut into sheets and not dye, this would become the storehouse for both rolled and cut material.

The amount of land in estimate is sufficient to construct a works embodying seven machines,together with the dyeing, millinery and articles.

INTERROGATORY NO. 4 (a)

THE VARIETIES OF CELLOPHANE, SALES OF WHICH BY DU PONT HAVE EXCEEDED ONE THOUSAND DOLLARS ($1,000) IN ANY YEAR

Symbol	Description
PT	Plain; Transparent
PT-61	" " Highly Softened For Embossing
62	" " Average Year-Round Durability, Minimum Shrinkage Properties
63	" " Lower Durability than PT-62, Special for Foliating Trade
65	" " Special Sizing
PT-M25	" " Special for Millinery Trade
PT-Dusted	" " Dusted
PHT	" " For High Humidity Use
PBYT	" " Distilled-Water Washed; Special Softener; Transparent
PEBYT	" Embossed; Distilled-Water Washed; Special Softener; Transparent
PYT	" Special Softener; Transparent
PUKT	" Unsized; Maximum Dimensional Stability; Transparent
PUT	" " Transparent
PUT-0	" " " No Softener
70	" " " For Bias Tape Wrapping
71	" " " For Medical Uses
75	" " " Mixed Softener, Pressure Sensitive Tape
76	" " " Special Softener, " " "
77	" " " High Softener, " " "
78	" " " Medium Softener, " " "
PUWT	" " Watermarked; Transparent
PWT	" Watermarked; Transparent
PET	" Embossed; Transparent (Produced in Various Embossed Patterns)
PEC	" " Colored (Produced in Various Patterns and Colors)
PJT	" Flame-Resisting; Transparent
PJC- Amber	" " " Colored
Black	" " " "
Dark Blue	" " " "
Lt. Green	" " " "
Red	" " " "
PRJC-Black	" Rancidity-Retardant; Flame-Resisting; Colored
PC- Amber	" Colored
Black	" "
M-25 Black	" " Special for Millinery Trade
Blue	" "
Brown	" "
Chartreuse	" "
Dark Blue	" "
Dark Green	" "
Gold	" "
Green	" "
Lt. Blue	" "
Lt. Chocolate	" "
Lt. Green	" "
Orchid	" "
Pastel Blue	" "
Pink	" "
Red	" "
Tango	" "
Violet	" "
PHC- Red	" " For High Humidity Use
PRC- Amber	" Rancidity-Retardant; Colored
Black	" " " "
Tango	" " " "
PO	" Opaque
POC- Black	" " Colored
Blue	" " "
Brown	" " "

Gauges in Which Available

253; 300; 400; 450; 600; 1200; 1800; 2400
300; 600;
300; 450
300; 450
300; 450
300; 450; 750
300
300
300
300
300
300
150; 300; 450; 600; 650; 1200
300
300
300
600
600
600
600
300
300
253; 300; 400; 450; 600
253; 300; 400; 500
300; 450
300
450
300
300
300
450
300; 450
300; 600
750
300; 600
300; 600
300
300
300
300
300; 450
300; 600
300
300
300
300
300; 450; 600
300; 450; 1200
300
300
300
300; 450; 600
300
300; 450; 600
300
300
300

3587

5490

INTERROGATORY NO. 4 (a)

Symbol	Description	Gauges in Which Availab
MT	Moistureproof; Transparent: Same as MT-31	300; 450; 600
MT-31	" " For General Use	250; 300
32	" " Special Coating For Cigars	300; 450
33	" " Special Coating For Sticky Candy	300
34	" " High Softener For High Durability	300
35	" " High Softener For Frozen Foods	300; 450
36	" " Special Coating For Caramels	300
MDT	" One-Side Coated; Transparent	300
MSDT	" Heat-Sealing; One-Side Coated; Transparent	300; 600
MOT	" Transparent: Same as MT-34	300
MET	" " Same as MYT or MT-35	300
MSET	" Heat-Sealing; Transparent: Same as MSYT or MST-53	300
MYT	" Transparent: Same as MT-35	300
MSYT	" Heat-Sealing; Transparent: Same as MST-53	300; 450
MWT	" Watermarked; Transparent	300
MSWT	" Heat-Sealing; Watermarked; Transparent	300
MWT-Special	" Watermarked; Transparent: Special Mark	300
MSWT-Special	" Heat Sealing; Watermarked; Transparent: Special Mark	300
MSYWT	" " " " " {Extra Durability at Low Temperatures	300
MSKT	" " " Transparent: Maximum Dimensional Stability	300
MSYKT	" " " " " " " " {bility at Low Temperatures Extra Dura-	300
MSQT	" " " " Same as MST-56	300; 450
MSQYT	" " " " Same as MST-57	300; 450
MST	" " " " Same as MST-52	300; 450; 600
MST-50	" " " " Low Softener, Minimum Shrinkage	300; 450
51	" " " " Special Softened For Bread Wrapping	300
52	" " " " Mixed Softener For General Use	300; 450
53	" " " " Special Softened For Bags	300; 450
53G	" " " " " " " " pH Controlled	300; 450
54	" " " " Not Seasonally Adjusted Film, General Use	300; 450
54G	" " " " {" " " " " " " " {pH Controlled	300; 450
55	" " " " Same as MST-57	300; 450
56	" " " " Same as MST-54 Except Heavy Coating	300; 450
57	" " " " " " MST-53 " "	300; 450
57G	" " " " {" " MST-53 " " {pH Controlled	450
58	" " " " {Special Formula For Cigar & Cigarette Wrapping	300; 450
MSJT	" " " Flame-Resisting; Transparent	300
MSJC-Dark Blue	" " " " " Colored	300
Lt. Green	" " " " " "	300
Red	" " " " " "	300
MC- Amber	" Colored	300
Red	" "	300; 450
Tango	" "	300
MSC- Amber	" Heat-Sealing; Colored	300; 450; 600
Blue	" " " "	300
Chartreuse	" " " "	300
51-Chocolate	" " " " Similar to MST-51	300
Dark Blue	" " " "	300
Dark Green	" " " "	300; 450
Green	" " " "	300
Lt. Blue	" " " "	300; 600
Lt. Green	" " " "	300
Nile Green	" " " "	300
Orchid	" " " "	300
Pink	" " " "	300
Red	" " " "	300; 450; 600

3588
5491

INTERROGATORY NO. 4 (a)

Symbol	Description	Gauges in Which Available
MSC		
-54 Red	Moistureproof; Heat-Sealing; Colored: Similar to MST-4	450
-540 Red	" " " " " " pH Controlled	300; 450
Tango	" " " "	300; 450
-51 Tango	" " " " For Bread Wrapping	300
Violet	" " " "	300
MRC- Black	" Rancidity-Retardant; Colored	300
MSRC- Black	" Heat-Sealing; Rancidity-Retardant; Colored	300
Red	" " " " " "	300
Tango	" " " " " "	300
MSO	" " " Opaque	300
MSDO	" " " One-Side Coated; Opaque	300
MAT	" Anchored; Transparent: Same as MAT-1	300
MAT-1	" " " Normal Durability	300; 450
2	" " " Extra Durability at Low Temperatures	300
30	" " " Special Film For Laminating on Government Specification	300
MAYT	" " " Same as MAT-2	300
MSAYT	" Heat-Sealing; Anchored; Transparent: Same as MSAT-83	300; 450
MSAT	" " " " Same as MSAT-82	300; 450
MSAT-80	" " " " Special Coating For Meat Wrapping	300; 450
82	" " " " Normal Durability	300; 450; 600
820	" " " " Same as MSAT-82, pH Controlled	300; 450
83	" " " " Extra Durability at Low Temperatures	300; 450
84	" " " " Heavier Coating than MSAT-82	300; 450
840	" " " " Same as MSAT-84, pH Controlled	300; 450
85	" " " " Same as MSAT-83, Except Heavier Coating	300; 450
86	" " " " Same as MSAT-82, Different Anchoring Process	300; 450
87	" " " " Same as MSAT-83, Different Anchoring Process	300; 450
MSAT Laminated	" " " " Laminated	600
MAC - 2 Green	" Anchored; Colored: Similar to MAT-2, Standard Green Color	300
MAC - 20 Green	" " " " " Special Green Color, pH Controlled	300
MSAC-820 Green	" Heat-Sealing; Anchored; Colored: Similar to MSAT-82, pH Controlled	300
820 Lt. Blue	" " " " " " " Special Blue, pH Controlled	600
820 Red	" " " " Similar to MSAT-82, pH Controlled	300
840 Red	" " " " " " MSAT-84, pH Controlled	450
82 Tango	" " " " " " MSAT-82	300
MAJT	" Anchored; Flame-Resisting; Transparent: Gas Protective Cape, War Use	300; 800
MAJOC-Olive Drab	" " " " Opaque; Colored: Gas Protective Cape, War Use	300; 800
K-202	" Heat-Sealing; Transparent: Special Coating	450
L-114	" Heat-Sealing; Anchored; Transparent: Laminated Films For War Use	600
L-116	" " " " " " " " " "	600
LT	Less-Moistureproof; Transparent	300
LST	" " Heat-Sealing; Transparent	300
LAT	" " Anchored; Transparent	300
LSAT	" " Heat-Sealing; Anchored; Transparent	300; 450
LC -Green	" " Colored	300
Red	" " "	300
Tango	" " "	300

3589

5492

INTERROGATORY NO. 4 (a)

Symbol	Description	Gauges in Which Available
LAC -Blue	Less-Moistureproof; Anchored; Colored	300
Green	" " " "	300
Lt. Green	" " " "	300
Red	" " " "	300
Tango	" " " "	300; 450
LARC-Tango	" " Rancidity-Retardant; Colored	300
LSAC-Tango	" " Heat-Sealing; Anchored; Colored	300
SST	" " Transparent: Same as LT	300
SSC -Green	" " Colored: Same as LC	300
Red	" " " " " "	300
Tango	" " " " " "	300

DESCRIPTION OF INDIVIDUAL SYMBOLS

Symbol	Description
A	Anchored (Water-Resistant)
B	Distilled Water Washed
C	Colored
D	Moistureproof Coating One Side Only
E	Embossed, Except in "MET" the "E" Relates To Softener Type
G	High Softener, When Used in Combination With Other Letters. Designates Film Produced To U. S. Government Specifications, When Used as Suffix To Numerals
H	High Humidity Use
J	Flame-Resisting
K	Maximum Dimensional Stability - Except in "K-202" Where "K" Itself Has No Meaning
L	Less Moistureproof Than "M" Films - Except In "L-114" & "L-116" The "L" Designated Film Was Laminated
M	Moistureproof Except in "PT-M25" & "PC-M25" The "M" Indicated Film For Millinery Use
O	Opaque
P	Plain (Non-Moistureproof)
Q	Heavy Coating
R	Rancidity Retardant
S	Heat-Sealing, Except in "SST" & "SSC" Where The "SS" Designated Film As Less Moistureproof Than "M" Films
T	Transparent (Uncolored)
U	Unsized
W	Watermarked
Y	Relates To Softener Type

Note: "pH" is a numerical expression denoting the acidity or alkalinity of a substance (hydrogen ion concentration).

3590

5493

INTERROGATORY NO. 4 (b)

DU PONT'S ANNUAL SALES OF EACH VARIETY OF CELLOPHANE LISTED IN RESPONSE TO INTERROGATORY NO. 4 (a) YEARS 1940 - 1949, INCLUSIVE see note on last page

DOLLARS

Type of Film	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
150 PUT	1,479	(32)	-	-	-	-	-	-	-	-
300 PT	3,089,053	3,795,460	1,613,587	1,359,913	968,441	1,034,058	1,269,050	2,267,317	2,850,767	2,606,874
PT-61	6,839	78,343	-	-	-	-	-	-	-	-
62	-	-	-	-	-	20,831	76,520	135,231	230,862	354,065
63	-	-	-	-	-	518	-	4,400	1,061	80
65	-	2,919	-	-	-	-	-	-	-	-
PHT	421,119	531,793	446,367	424,557	310,748	290,533	356,365	438,301	456,162	385,788
PUT	30,713	28,242	19,743	-	-	-	-	-	-	-
PUT-0	-	-	-	16,414*	5,730*	3,867	7,925	7,312	(415)	1,060
70	-	-	-	-	-	1,192	4,027	2,122	1,112	228
71	-	-	-	-	-	37,386	38	-	17	109
450 PT	1,641,830	2,100,982	1,398,820	1,202,982	1,423,390	965,745	804,363	1,433,288	1,421,262	1,275,094
PT-62	-	-	-	-	-	185,541	119,221	92,901	186,188	251,003
63	-	-	-	-	-	8,438	10,870	20,797	55,508	15,597
65	-	8,105	-	-	-	-	-	-	-	-
PUT	18,992	29,991	17,422	21,890	155	-	-	-	-	-
600 PT	130,701	174,968	77,989	156,755	198,572	233,435	442,398	378,178	364,583	339,323
• PT-61	10,543	62,584	-	-	-	-	-	-	-	-
• PUT	497,115	941,663	414,054	599,400	1,512,072	580	936	-	-	-
PUT-75	-	-	-	-	-	-	-	3,011	-	-
76	-	-	-	-	-	-	-	98,873	751,188	334,575
77	-	-	-	-	-	552,673	311,512	553,690	362,529	234,357
78	-	-	-	-	-	782,654	972,987	1,231,095	1,359,070	1,152,267
650 PUT	-	-	-	-	-	-	-	66,879	218,511	25,901
300 PC Amber	102,793	127,840	56,932	72,691	46,337	60,880	73,190	93,330	92,894	93,522
Brown	3,431	4,135	149	-	-	-	-	2,328	5	-
Dk.Blue	65,569	84,915	8,023	2,987	257	-	20,555	58,997	63,919	57,975
Dk.Green	41,521	49,778	2,797	1,730	31	-	18,966	46,538	55,510	58,245
Gold	-	-	-	-	-	-	-	-	-	19,052
Lt.Blue	36,937	58,729	15,286	2,096	126	291	(9)	2	8,456	13,043
Lt.Green	52,045	76,438	13,895	2,349	180	-	14,945	40,871	49,882	47,409
Orchid	14,707	23,822	4,270	1,959	27	-	8,403	18,178	28,251	28,171
Pastel Blue	1,861	2,007	217	-	-	-	-	-	-	-
Pink	39,552	58,031	17,532	4,157	141	-	12,375	37,481	37,795	43,313
Red	309,478	443,656	85,897	74,604	66,751	116,905	303,203	330,579	391,867	380,250
Tango	71,493	90,130	39,492	39,292	25,234	27,494	36,184	58,739	54,690	56,174
Violet	14,685	19,895	3,840	1,319	47	-	-	-	-	-
PET	23,002	12,922	-	-	-	-	-	-	-	-
PHC Red	-	2,303	-	-	-	-	-	-	-	-
PJC Amber	-	-	-	-	-	-	-	-	-	2,157
Dk.Blue	738	4,143	1,431	-	-	-	544	3,527	5,528	4,541
Lt.Green	774	3,249	486	-	-	-	661	7,387	16,709	33,322
Red	5,439	12,241	1,225	65	-	4,341	18,372	53,159	102,972	118,632
PJT	16,267	81,871	157,338	207,364	322,325	32,638	30,008	40,490	41,971	33,692
PO	17,717	24,810	15,162	16,301	21,623	1,201	11,174	15,178	6,719	9,252
PRC Black	21,951	44,556	17,374	8,094	5,148	8,583	22,540	30,022	37,777	11,304
Tango	147,638	130,627	61,866	32,434	35,297	18,597	23,500	128,818	168,218	209,437

*For the years 1943 and 1944, amounts shown for 300 PUT-0 include an unknown amount of 300 PUT. A breakdown between the two types of film is not available.

INTERROGATORY NO. 4 (b)

Type of Film	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
450 PC Amber	1,049	600	5,628	720	4,986	-	-	-	-	-
Red	10,307	4,076	3,153	56	130	-	-	-	-	-
Tango	1,438	929	595	8,118	18,152	24,116	4,202	7,139	-	-
PJC Black	-	-	-	-	11,670	4,523	179	-	-	-
PJT	-	9,777	20,544	35,665	30,151	12,368	56	-	-	-
PRC Black	-	1,227	-	-	-	-	-	-	-	-
PRJC Black	-	-	2,427	-	-	-	-	-	-	-
600 PC Lt.Blue	-	-	-	2,038	14,131	29,148	5,468	5,438	-	18
Red	21,500	12,292	30,486	19,277	2,402	7,282	26,272	35,961	66,822	73,960
1200 PC Tango	-	-	-	3,379	-	-	-	-	-	-
250 MT-31	-	-	-	-	2,980	-	-	-	-	-
300 MT	5,014,406	66,612	76,853	76,865	71,721	29,222	73,879	98,599	203,066	288,666
MT 31	1,427,399	6,497,764	6,113,635	2,615,180	5,481,414	5,095,722	6,489,148	8,884,646	10,274,632	9,731,643
32	155,158	788,188	656,653	249,988	647,257	96,863	707,462	827,722	893,841	900,880
33	31,133	295,346	276,006	(4)	-	12,842	111,839	199,874	81,497	1,628
34	33,048	112,172	81,508	14,030	-	-	-	-	-	-
35	3,470	220,670	269,589	593,775	536,929	477,673	675,743	743,435	747,492	429,897
36	-	-	-	-	-	-	-	-	49,591	214,298
450 MT	-	-	721	-	6,887	-	-	-	-	-
MT-35	-	-	-	21,713	2,745	720	3,749	10,655	9,962	13,003
300 MST	6,985,509	263,971	249,716	291,615	407,902	520,712	650,304	1,008,714	1,888,497	1,832,064
MST-50	-	-	1,954	52,102	28,196	-	8,956	190,830	71,687	86,608
51	2,219,454	9,423,088	6,871,221	8,633,788	3,681,947	4,062,[illegible]5	5,835,034	7,146,525	9,402,224	11,864,359
52	1,433,252	7,246,783	6,688,362	2,060,491	3,451,848	4,374,291	6,360,710	7,919,401	10,679,453	9,944,472
53	429,715	2,315,701	2,081,478	3,175,144	1,601,062	2,107,022	4,168,324	4,759,718	7,459,602	8,837,272
530	-	-	-	3,485	55,334	22,317	284	-	-	-
54	54,840	397,050	30,397	179,131	578,673	337,244	444,509	680,112	1,737,473	4,986,393
540	-	-	-	33,659	87,482	130,478	15,516	5,000	11,589	5,710
55	13,332	76,255	-	-	-	-	-	-	-	-
56	-	-	31,197	107,590	56,497	35,798	29,310	217,357	326,813	426,825
57	-	-	63,417	20,311	14,655	7,303	38,058	31,672	94,904	134,702
58	-	-	470,581	6,959,065	2,026,730	2,155,612	1,963,402	2,164,674	2,016,516	1,444,593
450 MST	406,334	-(143)	79	13,560	96,784	121,651	49,505	57,288	150,762	237,336
MST-50	-	-	2,284	12,134	1,743	524	-	-	-	-
52	68,993	505,807	371,081	246,560	333,726	407,254	858,368	1,179,134	1,665,218	1,092,012
53	151,902	1,277,974	1,552,758	2,191,273	1,040,135	1,678,375	2,816,283	3,512,568	3,382,027	4,447,201
530	-	-	-	357,310	1,225,928	761,281	254	-	-	-
54	(7)	443	21,468	205,598	1,315,711	1,054,300	356,007	489,583	825,071	2,484,522
540	-	-	-	33,610	135,339	119,031	40,966	51,194	36,850	39,536
55	56,699	275,129	-	-	-	-	-	-	-	-
56	-	-	103	11,852	1,688	32,875	65,151	13,848	8,738	38,947
57	-	-	3,102	58,250	166,034	103,102	18,055	7,677	17,815	25,940
570	-	-	-	3,881	-	-	-	-	-	-
58	-	-	-	21,111	822	-	211	820	-	-
600 MST	12,536	34,408	15,837	19,830	58,234	25,922	64,021	101,177	179,566	283,525
300 MSDT	142,959	347,307	293,960	360,745	139,475	90,372	366,251	346,337	728,193	790,615
600 MSDT	-	-	-	-	1,286	1,033	-	-	-	-
300 MSQT	113,530	-	-	-	-	-	-	-	-	-
450 MSQT	74,389	-	-	-	-	-	-	-	-	-
300 MSQYT	20,098	-	-	-	-	-	-	-	-	-
450 MSQYT	103,695	-	-	-	-	-	-	-	-	-
300 MSYT	4,771,840	-	-	-	-	-	-	-	-	-
450 MSYT	140,348	-	-	-	-	-	-	-	-	-
300 MYT	44,362	-	-	-	-	-	-	-	-	-
300 MSWT-Special	3,727	5,429	-	-	-	-	-	-	-	-
300 MSJT	182	248	259	-	234	191	2,765	4,435	13,643	5,138

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5695

INTERROGATORY NO. 4 (b)

Type of Film		1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
300 MSC	Amber	122,732	141,893	111,113	121,793	74,784	101,833	164,076	160,322	311,488	498,144
51	Chocolate	-	-	-	-	-	-	-	-	-	7,511
	Dk.Blue	1,623	6,888	1,018	1,368	501	101	7,904	15,197	13,600	12,381
	Dk.Green	2,166	6,773	3,315	525	472	74	2,241	6,729	8,597	10,245
	Lt.Blue	14,201	39,380	16,200	6,677	1,724	402	-	-	3,537	17,458
	Lt.Green	12,977	22,942	20,168	527	2,065	1,255	13,752	22,175	43,809	72,936
	Orchid	4,748	8,208	5,179	373	24	24	3,343	21,454	23,909	31,710
	Pink	7,591	13,186	7,745	2,376	39	-	7,405	14,178	18,194	33,005
	Red	70,024	154,302	70,343	63,302	67,384	68,150	158,706	196,884	223,860	260,241
540	Red	-	-	-	19,050	6,015	6,280	207	-	-	-
	Tango	597,594	694,710	439,266	45,167	80,071	231,423	131,920	185,129	218,762	303,451
51	Tango	-	-	-	333,186	190,004	189,239	452,910	452,180	902,498	1,213,337
	Violet	3,973	6,990	1,185	119	86	-	-	-	-	-
450 MSC	Amber	7,218	4,724	2,481	864	4,304	-	-	-	-	-
	Dk.Green	2,078	5,392	2,827	-	23	-	-	-	-	-
	Red	24,287	23,323	6,586	2,957	8,572	5,141	584	-	-	-
54	Red	-	-	-	1,248	497	-	-	-	-	-
54C	Red	-	-	-	11,956	36,373	13,365	2,564	-	-	-
	Tango	46	4	78	-	4,874	10,839	1,386	4,231	-	-
600 MSC	Amber	-	-	-	-	-	-	-	-	-	3,751
	Lt.Blue	-	-	-	-	-	1,821	101	-	58	-
	Red	3,396	9,909	9,351	4,161	4,559	9,591	25,277	65,099	67,800	75,731
300 MSJC	Dk.Blue	-	-	-	-	-	-	-	439	1,619	69
	Lt.Green	-	-	-	-	-	-	-	619	1,570	353
	Red	174	162	-	-	-	300	7,661	3,121	3,466	7,781
MSRC	Black	944	3,446	2,442	1,042	-	5,587	12,893	3,583	2,442	4,715
	Red	-	-	1,207	-	-	-	-	-	-	-
	Tango	115	940	1,378	3,432	5,737	6,299	25,454	21,351	21,780	17,337
450 K-202		-	-	-	-	-	-	-	-	-	75,943
300 MAT		-	-	-	2,597	502	21,068	30,793	12,052	17,574	3,060
MAT-1		-	-	127,986	148,300	584,280	208,689	508,927	361,462	465,542	347,791
2		-	-	197,938	972,378	598,113	1,189,960	1,280,039	1,272,552	1,061,428	2,066,651
30		-	-	-		540,435	1,416,857	-	-	-	-
450 MAT-1		-	-	-	29,594	1,445	155	-	-	-	-
300 MSATT		220,938	-	-	-	-	-				
450 MSATT		32,089	-	-	-	-	-	-	-	-	-
300 MSAT		-	379,528	181,320	-	-	-	-	-	-	-
450 MSAT		-	76,676	94,380	-	-	-	-	-	-	-
300 MSAT-80		-	-	-	-	-	309	18,830	198,985	831,153	1,649,705
82		-	-	292,053	745,343	505,852	148,272	304,153	148,598	128,928	44,502
820		-	-	-	16,085	110,941	446,479	-	26,054	17,728	66,503
83		-	-	819,911	507,704	349,842	114,675	303,957	385,564	409,819	82,254
84		-	-	16,530	42,561	49,414	117,251	52,655	103,299	45,559	81,667
840		-	-	-	622	8,440	4,850	1,747	-	123	4,338
85		-	-	1,896	132	-	-	-	-	-	-
86		-	-	-	-	161,714	501,781	382,396	392,060	656,998	901,979
87		-	-	-	-	440,994	814,068	803,324	384,267	709,223	1,418,411
450 MSAT-80		-	-	-	-	-	-	3,778	41,796	391,068	903,076
82		-	-	385,804	477,372	512,410	522,464	99,932	111,912	107,142	127,252
820		-	-	-	319,387	394,115	350,103	3,392	-	-	-
83		-	-	273,913	1,117,964	2,201,359	456,128	264,867	73,708	162,687	48,533
84		-	-	219,916	89,538	276,033	39,911	7,360	1,609	6,744	10,130
840		-	-	-	128,060	741,893	666,237	22,250	58,242	24,685	33,871
85		-	-	14,738	1,528	-	-	-	-	-	-
86		-	-	-	-	341,916	756,311	213,210	327,286	491,393	628,948
87		-	-	-	-	155,712	1,193,661	287,977	140,447	247,324	676,850
600 MSAT	Laminated	-	-	1,325	-	-	-	-	-	-	-
MSAT	82	-	-	816	6,006	13,294	6,510	1,254	-	-	-

INTERROGATORY NO. 4 (b)

Type of Film		1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
300 MAJT		-	-	150,454	264,791	45,802	-	-	-	-	-
800 MAJT		-	-	-	117,935	548,933	393,758	-	-	-	-
300 MAJOC		-	-	767,815	1,055,183	144,167	3,174	-	-	-	-
800 MAJOC		-	-	-	203,443	1,825,959	1,173,413	-	-	-	-
300 MSC		-	-	-	-	-	3,513	16,766	4,757	3,674	-
300 MSDO		-	-	-	-	-	-	-	-	4,054	2,453
600 L 114		-	-	-	-	36,550	-	-	-	-	-
600 L 115		-	-	-	-	5,045	-	-	-	-	-
300 LT		72,300	68,660	36,574	3,678	530	-	-	-	-	-
LST		259,684	331,342	274,598	291,619	176,493	247,080	538,408	767,626	1,202,899	1,187,756
LAT		21,138	89,702	168,941	39,309	108,145	88,282	138,259	241,316	127,379	151,866
LSAT		-	-	-	-	-	6,270	37,645	281,611	1,295,563	2,867,119
450 LSAT		-	-	-	-	-	-	-	127,750	576,644	956,967
300 LAC	Lt.Green	25,481	39,888	17,234	479	-	7,123	5,129	28,794	57,678	58,805
	Red	69,765	149,007	62,806	483	22,568	74,468	144,105	176,071	237,966	256,529
	Tango	56,147	83,398	57,092	824	11,743	41,374	92,821	106,728	181,857	188,383
450 LAC	Tango	681	5,146	(199)	-	-	-	-	-	-	-
300 LARC	Red	-	2 108	(2,108)	-	-	-	-	-	-	-
	Tango	-	21,859	2,969	-	-	-	-	-	-	-
MAC -2	Green	-	-	-	10,608	2,409	-	-	-	-	-
2G	Green	-	-	-	37,658	158,678	19	-	-	-	-
MSAC 82	Tango	-	-	-	-	-	-	6,750	-	4,412	3,228
82G	Green	-	-	-	4,837	49,839	41,966	1,761	-	-	-
82G	Red	-	-	-	1,118	1,113	1,944	-	-	-	-
430 MSAC 84G	Red	-	-	-	12,396	235,389	465,710	2,547	-	-	-
600 MSAC 82G	Lt.Blue	-	-	-	17,886	28,238	7,724	876	-	-	-
Waste Cellophane		208,914	305,305	158,112	376,127	420,278	387,996	303,348	308,294	216,943	260,923
Flaked Cellophane		12,910	17,808	17,124	17,546	22,693	38,501	32,503	50,652	64,192	25,749

Note: Sales dollars shown represent invoice values less trade discounts and commissions, if any, but not cash or quantity discounts.

3594

6497

5569

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Civil Action 1216

INTERROGATORY 6 (a) & (b)

EXPORT EXPORTS OF PLAIN CELLOPHANE BY COUNTRIES

1934 - 1949, INCLUSIVE

POUNDS

Country	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
Angola	-	-	-	-	-	-	-	1,751	-	-	-	-	-	-	-	-
Argentina	28,840	80,746	(5,418)	85,280	289,621	131,139	317,376	175,504	281,370	155,545	138,177	81,126	167,739	844,807	193,867	170
Australia	-	-	-	6,441	-	-	-	-	29,134	-	-	58,180	-	-	-	-
Austria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Azores	-	-	-	-	-	-	-	-	1,169	-	-	-	-	-	-	-
Barbadoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Belgian Congo	-	-	-	-	-	-	-	1,652	-	-	-	-	-	-	-	-
Belgium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bermuda	19	-	-	101	-	-	-	-	-	-	-	-	-	-	-	135
Bolivia	-	11	-	-	-	-	2,064	351	341	2,329	3,177	1,118	5,906	-	1,773	2,060
Brazil	138,067	98,461	42,104	140,219	165,367	191,691	180,974	157,630	621,444	231,209	287,980	309,398	206,483	303,511	112,744	44,366
British Guiana	-	185	234	-	200	307	44	-	-	-	-	-	-	-	-	-
British Honduras	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Canada	4,795	7,171	2,912	2,410	1,849	1,068	835	179	-	-	-	-	-	-	501	94,934
Canary Islands	-	-	-	-	-	-	4,675	1,007	-	-	-	-	-	-	-	-
Celebes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chile	378	4,968	1,926	7,494	5,890	12,197	24,720	27,255	23,021	5,342	27,736	9,732	22,015	15,123	12,374	5,565
China	-	-	-	-	-	-	-	5,264	-	-	-	-	-	-	7,497	-
Columbia	84,534	65,871	141,698	94,645	78,064	175,652	166,788	177,937	182,781	520,781	251,744	192,928	292,369	297,507	270,705	324,214
Costa Rica	2,150	1,647	1,271	2,876	787	1,530	1,221	10,044	2,980	1,230	6,061	2,272	5,125	5,059	6,591	12,626
Cuba	44,938	64,717	67,392	94,160	79,271	111,245	100,612	134,301	160,121	177,702	110,146	113,932	163,277	198,484	151,488	85,020
Curacao	-	316	13	-	-	-	-	-	-	-	-	-	-	-	-	-
Dominican Rep.	8,990	16,272	12,656	18,167	15,117	16,832	18,348	24,878	14,561	51,544	14,911	17,224	12,164	21,931	12,209	7,798
Ecuador	1,334	-	632	1,375	507	4,178	3,171	3,150	15,007	4,666	10,745	9,557	13,110	16,650	11,232	17,995
Egypt	-	-	-	-	-	-	41,774	10,541	-	-	-	-	-	-	-	-
England	35	61,458	251,039	84,380	26,234	267	-	-	-	-	-	-	-	-	-	6,735
Ethiopia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Finland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
France	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-	-	89	-
Guatemala	8,038	1,080	731	2,575	5,907	12,353	8,409	11,027	10,977	27,641	12,128	10,767	13,795	21,836	14,429	8,086
Haiti	884	1,912	3,247	2,293	3,508	5,108	1,864	3,222	2,675	-	1,525	1,194	1,507	1,475	1,801	2,762
Hawaii	834	1,547	2,252	2,865	3,153	4,104	4,990	9,866	14,923	8,586	11,191	6,256	4,235	1,741	1,383	1,188
Honduras	967	2,584	4,428	4,666	5,240	7,472	4,126	10,346	2,553	2,901	4,683	5,409	8,642	7,097	15,259	11,953
Iceland	-	-	-	-	-	-	872	-	3,439	899	592	-	-	-	-	-
India	-	-	-	-	-	-	-	-	119	412	-	-	-	-	-	-
Iran	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,987
Iraq	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42,684
Jamaica	963	445	-	-	511	-	-	-	2,412	-	2,380	-	1,776	1,788	-	-
Japan	2,418	2,109	99	1,484	20	-	689	-	-	-	-	-	-	-	-	-
Java	-	-	-	-	-	-	-	38,602	-	-	-	-	-	-	-	-
Liberia	-	-	-	-	-	-	46	99	-	-	-	-	76	-	-	-
Luxemburg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Martinique	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mexico	189,360	97,878	111,467	106,362	117,217	154,305	808,108	311,596	430,932	421,056	201,616	839,703	342,027	422,335	863,031	387,531
Miscellaneous	88	-	35	35	264	742	1,309	-	-	-	1,000	-	-	-	-	-
Morocco (Fr.)	-	-	-	-	-	-	-	371	-	-	-	-	-	-	-	-
Netherlands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Newfoundland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Zealand	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nicaragua	63	431	355	772	544	609	330	1,093	711	1,156	1,640	673	672	2,736	2,338	3,107
Palestine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Panama	301	73	46	470	199	1,197	1,030	886	473	-	663	-	1,122	1,874	681	1,989
Paraguay	-	-	-	-	-	-	1,347	-	-	-	-	-	-	-	-	-
Peru	2,121	4,544	2,875	652	4,874	2,544	6,678	13,864	7,477	46,238	34,542	16,535	30,572	34,116	13,188	49,650
Philippine Is.	9,996	15,020	6,552	17,260	39,031	34,125	47,161	92,774	-	-	-	13,596	44,121	82,727	81,368	114,651
Portugal	-	-	-	-	-	-	1,299	86,696	85,721	16,990	1,497	-	-	-	7,118	-
Port. E. Africa	-	-	-	-	-	-	-	1,126	-	-	881	-	-	-	-	-
Puerto Rico	17,060	13,034	13,326	9,844	9,806	14,110	21,908	27,404	13,910	23,879	13,455	12,001	22,577	26,815	16,274	23,364
Salvador	435	2,159	2,948	4,006	1,952	6,773	8,588	17,509	15,387	89,108	13,219	14,441	16,767	23,461	10,539	40,160
Scotland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spain	-	-	-	-	-	-	-	-	-	-	-	-	-	70	-	-
Sumatra	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Surinam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Switzerland	-	-	-	-	-	-	-	-	51,318	-	-	-	-	3,391	978	1,971
Tangiers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	139
Trinidad	376	55	283	875	-	807	-	-	-	-	-	-	-	-	-	-
Turkey	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Union of So. Africa	-	-	-	-	-	-	-	19,725	-	-	-	-	-	-	27,986	66,943
Uruguay	383	9,113	1,905	11,784	24,615	6,435	22,073	86,790	9,916	89,220	84,908	16,035	83,814	88,307	5,930	-
Venezuela	14,792	17,143	17,848	24,829	20,010	24,908	42,715	113,803	35,798	150,615	57,676	45,897	101,851	134,048	149,383	179,968
Virgin Islands	-	-	-	-	86	-	-	-	-	-	-	-	-	-	-	-

INTERROGATORY NO. 4 (c)

DU PONT'S PRICES CHARGED FOR EACH VARIETY OF CELLOPHANE
LISTED IN RESPONSE TO INTERROGATORY NO. 4 (a)
YEARS 1940 - 1949, INCLUSIVE - see note on last page

DOLLARS PER POUND

Type of Film	1940	1941	1942	1943	1944	1945	1946	1947	1947 Eff. 10/1	1948	1948 Eff. 8/1	1949
150 PUT	.817	-	-	-	-	-	-	-		-		-
300 PT	.33	.33	.33	.33	.33	.33	.33	.33	.42	.42	.45	.45
PT-51	.33	.33	-	-	-	-	-	-		-		-
62	-	-	-	-	-	.33	.33	.33	.42	.42	.45	.45
63	-	-	-	-	-	.33	-	.33	.42	.42	.45	.45
65	-	.33	-	-	-	-	-	-		-		-
PHT	.33	.33	.33	.33	.33	.33	.33	.33	.42	.42	.45	.45
PUT	.33	.33	.33	-	-	-	-	-		-		-
PUT-0	-	-	-	.298	.345	.374	.354	.358		-		.490
70	-	-	-	-	-	.33	.33	.33	.42	.42	.45	.45
71	-	-	-	-	-	.33	.33	-		.42	.45	.45
450 PT	.38	.38	.38	.38	.38	.38	.38	.38	.43	.43	.45	.45
PT-52	-	-	-	-	-	.38	.38	.38	.43	.43	.45	.45
63	-	-	-	-	-	.38	.38	.38	.43	.43	.45	.45
65	-	.38	-	-	-	-	-	-		-		-
PUT	.38	.38	.38	.38	.38	-	-	-		-		-
500 PT	.45	.45	.45	.45	.45	.45	.45	.45	.48	.48	.50	.60
PT-61	.45	.45	-	-	-	-	-	-		-		-
PUT	.45	.45	.45	.45	.45	.45	.45	-		-		-
PUT-75	-	-	-	-	-	-	-	.45		-		-
75	-	-	-	-	-	-	-	.45	.48	.48	.48	.54
77	-	-	-	-	-	.45	.45	.45	.48	.48	.48	.54
78	-	-	-	-	-	.45	.45	.45	.48	.48	.48	.54
650 PUT	-	-	-	-	-	-	-	.513		.529		.561
300 PC Amber	.45	.45	.45	.45	.45	.45	.45	.45	.54	.54	.57	.57
Brown	.65	.55	.55	-	-	-	-	.55	-	-	-	-
6/1	.55											
Dk.Blue	.49	.49	.49	.49	.49	-	.49	.49	.54	.54	.57	.57
Dk.Green	.49	.49	.49	.49	.49	-	.49	.49	.54	.54	.57	.57
Gold	-	-	-	-	-	-	-	-		-		.625
Lt.Blue	.45	.45	.45	.45	.45	.45	.45	.45	.54	.54	.57	.57
Lt.Green	.49	.49	.49	.49	.49	-	.49	.49	.54	.54	.57	.57
Orchid	.45	.45	.45	.45	.45	-	.45	.45	.54	.54	.57	.57
Pastel Blue	.526	.443	.483	-	-	-	-	-		-		-
Pink	.45	.45	.45	.45	.45	-	.45	.45	.54	.54	.57	.57
Red	.45	.45	.45	.45	.45	.45	.45	.45	.54	.54	.57	.57
Tango	.45	.45	.45	.45	.45	.45	.45	.45	.54	.54	.57	.57
Violet	.49	.49	.49	.49	.49	-	-	-		-		-
PET	.54	.49	-	-	-	-	-	-		-		-
8/23	.49											
PHC Red	-	.499	-	-	-	-	-	-		-		-
PJC Amber	-	-	-	-	-	-	-	-		-		.65
Dk.Blue	.778	.590	.582	-	-	-	.586	.600	.62	.62	.65	.65
Lt.Green	.729	.615	.588	-	-	-	.585	.583	.62	.62	.65	.65
Red	.557	.541	.580	.543	-	.509	.524	.547	.62	.62	.65	.65
PJT	.506	.481	.418	.417	.413	.413	.422	.426	.50	.50	.53	.53
PO	.612	.639	.631	.586	.573	.587	.538	.605		.645		.655
PRC Black	.65	.55	.55	.55	.55	.55	.55	.55	.62	.62	.63	.63
5/1	.55											
Tango	.50	.50	.50	.50	.50	.50	.50	.50	.62	.62	.63	.63

8595

8648

INTERROGATORY NO. 4 (c)

Type of Film	1940	1941	1942	1943	1944	1945	1946	1947	1948 Eff. 8/1	1949
								Eff. 10/1		
450 PC Amber	.452	.630	.532	.321	.523	-	-	-	-	-
Red	.565	.505	.524	.620	.333	-	-	-	-	-
Tango	.704	.610	.720	.503	.522	.520	.535	.542	-	-
PJC Black	-	-			.749	.658	.962	-	-	-
PJT	-	.622	.570	.539	.495	.502	.450	-	-	-
PRC Black	-	.654	-		-	-	-	-	-	-
PRJC Black	-	-	.877	-	-	-	-	-	-	-
600 PC Lt.Blue	-	-	-	.648	.622	.614	.603	.704	-	-
Red	.564	.693	.632	.643	.516	.818	.655	.646	.673	.680
1200 PC Tango	-	-	-	1.002	-	-	-	-	-	-
250 MT 31	-	-	-	-	.410	-	-	-	-	-
300 MT	.41	.41	.41	.41	.41	.41	.41	.41	.44 .47	.47
MT -31	.41	.41	.41	.41	.41	.41	.41	.41	.44 .47	.47
32	.41	.41	.41	.41	.41	.41	.41	.41	.44 .47	.47
33	.41	.41	.41	.41	-	.41	.41	.41	.44 .47	.47
34	.41	.41	.41	.41	-	-	-	-	-	-
35	.41	.41	.41	.41	.41	.41	.41	.41	.44 .47	.47
36	-	-	-	-	-	-	-	-	- .47	.47
450 MT	-	-	.45	-	.46	-	-	-	-	-
MT -35	-	-	-	.46	.46	.46	.46	.46	.45 .48	.48
300 MST	.41	.41	.41	.41	.41	.41	.41	.41	see numbered types	
MST -50	-	-	.41	.41	.41	-	.41	.41	.44 .48	.48
51	.41	.41	.41	.41	.41	.41	.41	.41	.44 .48	.48
52	.41	.41	.41	.41	.41	.41	.41	.41	.44 .48	.48
53	.41	.41	.41	.41	.41	.41	.41	.41	.44 .48	.48
530	-	-	-	.41	.41	.41	.41	-	-	-
54	.41	.41	.41	.41	.41	.41	.41	.41	.44 .48	.48
540	-	-	-	.41	.41	.41	.41	.41	.44 .48	.48
55	.41	.41	-	-	-	-	-	-	-	-
56	-	-	.46	.46	.46	.46	.46	.46	.49 .52	.52
57	-	-	.45	.46	.46	.46	.46	.46	.49 .52	.52
58	-	-	.41	.41	.41	.41	.41	.41	.44 .47	.47
450 MST	.45	.46	.45	.46	.46	.46	.46	.46	.45 .48	.48
MST -50	-	-	.45	.46	.46	.45	-	-	-	-
52	.46	.46	.45	.46	.46	.46	.46	.46	.45 .48	.48
53	.46	.46	.45	.46	.46	.46	.46	.46	.45 .48	.48
530	-	-	-	.45	.46	.45	.45	-	-	-
54	.45	.46	.46	.45	.46	.46	.46	.46	.45 .48	.48
540	-	-	-	.43	.46	.45	.46	.46	.45 .48	.48
55	.43	.43	-	-	-	-	-	-	-	-
56	-	-	.51	.51	.51	.51	.51	.51	.50 .52	.52
57	-	-	.51	.51	.51	.51	.51	.51	.50 .52	.52
570	-	-	-	.51	-	-	-	-	-	-
58	-	-	-	.43	.46	-	.43	.46	.45 -	-
600 MST	.70	.54	.54	.54	.54	.54	.54	.54	.50 .52	.60
6/1	.54									
300 MSDT	.44	.41	.41	.41	.41	.41	.41	.41	.44 .48	.48
2/20	.41									
600 MSDT	-	-	-	-	.540	.540	-	-	-	-
300 MSOT	.41	-	-	-	-	-	-	-	-	-
450 MSOT	.43	-	-	-	-	-	-	-	-	-
300 MSOYT	.41	-	-	-	-	-	-	-	-	-
450 MSOYT	.43	-	-	-	-	-	-	-	-	-
300 MSYT	.41	-	-	-	-	-	-	-	-	-
450 MSYT	.46	-	-	-	-	-	-	-	-	-
300 MYT	.41	-	-	-	-	-	-	-	-	-
300 MSLT Special	.433	.450	-	-	-	-	-	-	-	-
300 MSJT	.582	.319	.714	-	.846	.666	.559	.576	.52 .52	.56 .56

3596

5499

INTERROGATORY NO. 4 (c)

Type of Film		1940	1941	1942	1943	1944	1945	1946	1947	1947 Eff. 10/1	1948	1948 Eff. 8/1	1949
300 NSC	Amber	.55	.55	.55	.55	.55	.55	.55	.55	.57	.57	.60	.60
	51 Chocolate	-	-	-	-	-	-	-	-	-	-	-	.594
	Dk.Blue	.55	.59	.59	.59	.59	.59	.59	.59	.57	.57	.60	.60
	6/1	.59											
	Dk.Green	.65	.59	.59	.59	.59	.59	.59	.59	.57	.57	.60	.60
	6/1	.59											
	Lt.Blue	.55	.55	.55	.55	.55	.55	-	-		.57	.60	.60
	Lt.Green	.55	.59	.59	.59	.59	.59	.59	.59	.57	.57	.60	.60
	6/1	.59											
	Orchid	.55	.55	.55	.55	.55	.55	.55	.55	.57	.57	.60	.60
	Pink	.55	.55	.55	.55	.55	-	.55	.55	.57	.57	.60	.60
	Red	.55	.55	.55	.55	.55	.55	.55	.55	.57	.57	.60	.60
	540 Red	-	-	-	.55	.55	.55	.55	-	-	-	-	-
	Tango	.55	.55	.55	.55	.55	.55	.55	.55	.57	.57	.60	.60
	51 Tango	-	-	-	.55	.55	.55	.55	.55	.57	.57	.60	.60
	Violet	.65	.59	.59	.59	.59	-	-	-	-	-	-	-
	6/1	.59											
450 NSC	Amber	.673	.696	.683	.584	.712	-	-	-	-	-	-	-
	Dk.Green	.706	.687	.890	-	.560	-	-	-	-	-	-	-
	Red	.682	.654	.726	.934	.568	.488	.550	-	-	-	-	-
	54 Red	-	-	-	.776	.520	-	-	-	-	-	-	-
	540 Red	-	-	-	.625	.591	.707	.611	-	-	-	-	-
	Tango	1.011	-	.750	-	.687	.622	.617	.633	-	-	-	-
500 NSC	Amber	-	-	-	-	-	-	-	-	-	-	-	.645
	Lt.Blue	-	-	-	-	-	.626	.336	-	-	.293	-	-
	Red	1.089	1.000	.887	.964	.804	.892	.750	.775	-	.751	-	.715
300 NSJC	Dk.Blue	-	-	-	-	-	-	-	.740	.65	.65	.68	.68
	Lt.Green	-	-	-	-	-	-	-	.740	.65	.65	.68	.68
	Red	.737	.737	-	-	-	.679	.633	.759	.65	.65	.68	.68
NSRC	Black	.65	.65	.65	.65	-	.65	.65	.65	.64	.64	.65	.65
	Red	-	-	.601	-	-	-	-	-	-	-	-	-
	Tango	.65	.65	.65	.65	.65	.65	.65	.65	.64	.64	.65	.65
450 K-202		-	-	-	-	-	-	-	-	-	-	-	.75
300 MAT		-	-	-	.50	.50	.50	.50	.50	.50	.50	.52	.52
MAT-1		-	-	.50	.50	.50	.50	.50	.50	.50	.50	.52	.52
2		-	-	.50	.50	.50	.50	.50	.50	.50	.50	.52	.52
30		-	-	-	-	.450	.449	-	-	-	-	-	-
450 MAT 1		-	-	-	1.195	.710	.675	-	-	-	-	-	-
300 MSAYT		.330	-	-	-	-	-	-	-	-	-	-	-
450 MSAYT		.373	-	-	-	-	-	-	-	-	-	-	-
300 MSAT		-	.535	.551	-	-	-	-	-	-	-	-	-
450 MSAT		-	.576	.582	-	-	-	-	-	-	-	-	-
300 MSAT-80		-	-	-	-	-	.57	.57	.57	.54	.54	.56	.56
82		-	-	.57	.57	.57	.57	.57	.57	.54	.54	.59	.59
820		-	-	-	.57	.57	.57	-	.57	.54	.54	.59	.59
83		-	-	.57	.57	.57	.57	.57	.57	.54	.54	.59	.59
84		-	-	.62	.62	.62	.62	.62	.62	.59	.59	.64	.64
840		-	-	-	.62	.62	.62	.62	-	-	.59	.64	.64
85		-	-	.62	.62	-	-	-	-	-	-	-	-
86		-	-	-	-	.57	.57	.57	.57	.54	.54	.56	.56
87		-	-	-	-	.57	.57	.57	.57	.54	.54	.56	.56
450 MSAT 80		-	-	-	-	-	-	.62	.62	.55	.55	.56	.56
82		-	-	.62	.62	.62	.62	.62	.62	.55	.55	.59	.59
820		-	-	-	.62	.62	.62	.62	-	-	-	-	-
83		-	-	.62	.62	.62	.62	.62	.62	.55	.55	.59	.59
84		-	-	.67	.67	.67	.67	.67	.67	.60	.60	.64	.64
840		-	-	-	.67	.67	.67	.67	.67	.60	.60	.64	.64

3597

5500

INTERROGATORY NO. 4 (e)

Type of Film			1940	1941	1942	1943	1944	1945	1946	1947	Est. 10/1	1948	Est. 8/1	1949
450	MSAT	85	-	-	.67	.67	-	-	-	-		-		-
		83	-	-	-	-	.62	.62	.62	.62	.55	.55	.56	.56
		87	-	-	-	-	.62	.62	.62	.62	.55	.55	.56	.56
500	MSAT	Laminated	-	-	1.008	-	-	-	-	-		-		-
	MSAT	82	-	-	.712	.738	.659	.715	.720	-		-		-
300	MAJT		-	-	.621	.58	.45	.45	-	-		-		-
					10/1 .58	3/1 .45								
800	MAJT		-	-	-	.61	.61	.40	-	-		-		-
							4/1 .50							
							7/1 .40							
300	MAJOC		-	-	.621	.58	.45	.45	-	-		-		-
					10/1 .58	3/1 .45								
800	MAJOC		-	-	-	.61	.61	.40	-	-		-		-
							4/1 .50							
							7/1 .40							
300	MSO		-	-	-	-	-	.680	.670	.703		.578		-
300	MSDO		-	-	-	-	-	-	-	-		.800		.695
500	L-114		-	-	-	-	.847	-	-	-		-		-
600	L-116		-	-	-	-	.893	-	-	-		-		-
300	LT		.41	.41	.41	.41	.41	-	-	-		-		-
	LST		.41	.41	.41	.41	.41	.41	.41	.41	.44	.44	.48	.48
	LAT		.37	.37	.57	.57	.37	.57	.57	.57	.54	.54	.56	.56
	LSAT		-	-	-	-	-	.555	.567	.559	.54	.54	.56	.56
450	LSAT		-	-	-	-	-	-	-	.588	.55	.55	.56	.56
300	LAC	Lt.Green	.65	.65	.65	.65	-	.65	.65	.65	.65	.65	.598	.608
		Red	.65	.55	.65	.55	.65	.65	.65	.65	.65	.65	.598	.609
		Tango	.65	.65	.65	.65	.65	.65	.65	.65	.65	.65	.604	.609
450	LAC	Tango	.842	.691	-	-	-	-	-	-		-		-
300	LARC	Red	-	.601	.601	-	-	-	-	-		-		-
		Tango	-	.659	.588	-	-	-	-	-		-		-
	MAC 2	Green	-	-	-	.570	.496	-	-	-		-		-
	20	Green	-	-	-	.559	.558	.683	-	-		-		-
	MSAC 82	Tango	-	-	-	-	-	-	.737	-		.763		.851
	820	Green	-	-	-	.639	.633	.632	.670	-		-		-
	820	Red	-	-	-	.541	.590	.651	-	-		-		-
450	MSAC 840	Red	-	-	-	.713	.732	.708	.594	-		-		-
500	MSAC 820	Lt.Blue	-	-	-	.913	.910	.911	.605	-		-		-
Waste Cellophane			.047	.047	.074	.100	.127	.102	.061	.066		.077		.071
Flaked Cellophane			.246	.239	.240	.240	.174	.143	.150	.129		.100		.106

Note: Prices shown in two digits were taken from price lists and represent price per pound for one of the larger selling forms (slit rolls-500 pounds) of film. These prices were subject to discounts and commissions in effect at the time.

Prices shown in three digits represent actual average prices received (invoice price less trade discounts and commissions, if any) for all forms of a particular film for which there was no list price.

3598

5501

INTERROGATORY 6 (a) & (b)

EXPORT EXPORTS OF MOISTUREPROOF CELLOPHANE BY COUNTRIES

1934 - 1949, INCLUSIVE

POUNDS

Country	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
Angola	-	-	-	-	-	-	-	-	-	-	-	-	-	110	3,899	-
Argentina	43,570	159,699	(8,096)	168,086	418,969	306,749	589,918	309,699	971,870	237,387	420,869	384,993	609,033	789,587	1,698,601	-
Australia	-	-	-	-	-	-	-	-	40,858	638,888	142,108	13,058	-	-	-	-
Austria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80,498
Azores	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barbadoes	-	-	-	-	-	-	-	-	-	-	-	-	3,187	9,741	-	-
Belgian Congo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Belgium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,724	750
Bermuda	77	38	118	156	221	159	-	110	-	-	1,683	-	-	-	-	104
Bolivia	462	18	-	-	-	-	1,579	2,858	5,884	10,689	4,968	1,837	25,749	7,893	15,118	11,610
Brazil	88,621	69,313	69,339	180,638	189,815	190,075	121,749	240,824	280,673	177,850	288,938	160,081	386,761	397,877	317,934	830,988
British Guiana	-	-	-	-	-	159	443	2,378	2,058	-	4,389	1,994	8,804	83,143	18,088	18,568
British Honduras	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Canada	31	349	1,693	11,011	16,839	80,097	1,137	1,693	-	-	183	46	-	-	6,998	859,870
Canary Islands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Celebes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	866
Chile	2,856	13,033	6,960	87,518	30,469	35,190	88,650	44,218	49,360	36,698	4,086	13,438	15,731	31,198	87,893	59,689
China	-	-	-	-	-	-	-	482	4,462	-	-	-	-	-	36,220	-
Columbia	13,445	37,489	38,089	128,403	160,326	849,134	211,386	319,013	371,491	483,460	212,892	206,883	447,008	448,380	909,048	930,938
Costa Rica	10,578	11,977	16,972	18,299	83,564	38,518	88,563	17,863	14,309	88,613	83,169	16,995	83,796	18,341	86,501	41,860
Cuba	5,957	8,354	6,778	11,713	10,759	18,067	39,604	44,013	37,195	58,878	65,614	31,878	77,019	118,531	99,397	189,385
Curacao	-	31	35	408	-	-	-	1,852	-	-	-	-	-	-	-	-
Dominican Rep.	13,474	1,073	6	519	1,775	2,439	2,163	879	-	439	348	-	8,399	4,817	18,869	4,896
Ecuador	79	5,051	6,217	7,291	6,309	6,586	12,888	14,183	9,995	2,883	2,980	2,135	3,831	4,052	8,564	3,906
Egypt	-	-	-	-	-	-	-	2,612	-	-	-	-	-	-	-	-
England	913	99,787	881,840	421,790	104,200	7,003	-	-	-	-	-	-	-	-	-	4,491
Ethiopia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,119
Finland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,086	-
France	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	859
Germany	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,789
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-	-	980	360
Guatemala	8,533	6,189	9,118	7,981	16,934	21,409	17,740	89,882	82,313	87,360	11,166	17,994	21,121	18,188	86,309	99,944
Haiti	44	-	-	139	-	-	-	-	667	660	630	667	389	338	-	13,988
Hawaii	2,015	616	2,395	2,679	5,183	10,451	26,884	40,812	32,568	117,476	130,932	69,130	23,988	34,451	45,043	47,585
Honduras	445	980	1,190	1,188	1,701	2,215	13,890	12,410	9,615	12,190	6,078	7,704	13,808	26,976	39,898	42,086
Iceland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,466	-
India	-	-	-	-	-	-	-	-	-	614,497	-	542,306	-	-	-	-
Iran	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,800
Iraq	-	-	-	-	-	-	-	-	393,844	143,935	66,797	48,896	-	-	82,365	-
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41,151
Jamaica	8,899	8,886	14,515	16,709	33,931	42,611	19,790	--	36,288	32,984	24,036	-	21,323	19,894	-	510
Japan	12,995	22,288	21,806	10,248	5,517	7,648	2,342	384	-	-	-	-	-	-	-	-
Java	-	-	-	-	-	-	60,237	68,484	22,980	-	-	-	-	-	-	9,149
Liberia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Luxemburg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,372
Martinique	-	-	-	-	-	-	-	1,432	1,811	1,091	893	378	-	-	-	-
Mexico	211,271	271,750	412,892	446,573	410,896	587,397	888,999	544,729	894,876	988,891	636,461	325,930	1,086,176	1,069,876	1,098,389	1,117,386
Miscellaneous	-	-	7,821	9,116	15,544	16,870	11,158	14,315	22,980	53,961	7,618	13,806	41,126	85,865	21,998	6,075
Morocco (Fr.)	-	-	-	-	-	-	-	-	-	-	2,032	2,443	-	-	-	-
Netherlands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	432	-
Newfoundland	-	-	-	-	-	-	-	-	-	4,886	-	-	9,973	4,991	-	2,054
New Zealand	-	-	-	-	-	-	-	-	49,258	-	4,498	1,983	-	-	-	-
Nicaragua	6,978	11,849	9,692	14,051	13,983	18,384	8,033	6,000	6,376	-	4,261	3,252	-	8,351	18,778	9,069
Palestine	-	-	-	-	-	-	-	711	-	-	-	-	-	-	1,074	-
Panama	18	93	-	109	11	279	764	1,993	1,881	2,991	6,361	11,947	18,869	6,982	7,788	19,784
Paraguay	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Peru	393	1,304	2,879	1,475	2,494	4,238	8,986	14,776	13,084	20,966	28,071	13,170	30,161	26,415	89,893	32,094
Philippine Is.	117,232	100,297	61,195	67,192	75,567	43,937	76,325	81,090	-	-	-	13,626	64,973	83,889	78,938	99,660
Portugal	-	-	-	-	-	-	-	8,817	-	-	-	-	-	-	3,670	-
Port. E. Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,982	3,186
Puerto Rico	40,558	12,491	273	1,495	547	5,864	8,066	10,273	8,994	11,997	18,909	40,434	80,801	30,766	62,434	5,943
Salvador	966	1,164	140	250	8,560	23,040	9,080	12,641	8,881	13,846	9,453	7,551	16,486	21,769	22,514	80,092
Scotland	-	-	-	1,857	-	-	-	-	-	-	-	-	-	-	-	-
Spain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	998
Sumatra	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Surinam	-	-	-	-	152	1,052	755	3,044	1,184	4,584	8,864	-	1,369	1,349	3,880	3,443
Switzerland	-	-	-	-	-	-	-	10,877	33,336	-	-	-	-	-	7,567	88,696
Tangiers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,184	-
Trinidad	881	80	-	79	540	1,443	-	-	-	1,889	2,848	2,994	-	-	645	5,068
Turkey	-	-	-	1,971	-	-	-	-	-	-	-	-	-	-	-	-
Union of So. Africa	-	-	-	-	-	-	2,444	19,713	-	-	-	-	-	-	69,966	98,899
Uruguay	2,410	10,640	(1,034)	5,853	18,448	4,490	5,997	2,743	29,816	38,233	32,692	27,982	54,967	89,207	37,109	7,637
Venezuela	79	948	730	3,176	3,898	3,477	9,702	14,500	30,695	83,849	46,660	42,886	51,734	94,169	108,154	145,761
Virgin Islands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,079

[redacted] 6 (a) & (c)

[redacted]

[redacted]

[redacted]

Country	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	-	•	-	10	20	-	-	1,498	-	-	-	-	-	75	-	-	-
[redacted]	-	•	-	20	36	80	-	-	280	-	-	-	90	-	90	-	-
Australia	-	•	-	-	-	54	85	44	-	-	-	-	-	-	-	-	-
[redacted]	-	•	-	-	-	-	-	-	-	-	-	-	-	80	-	-	-
[redacted]	-	•	-	-	-	-	-	-	76	-	-	-	-	-	-	-	-
Belgium	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[redacted]	3	•	-	-	25	5	-	-	-	-	-	-	-	-	-	-	-
Brazil	-	•	-	311	101	101	598	2,336	368	-	-	-	-	-	-	-	-
British Guiana	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Canada	808	601	662	654	562	686	1,120	1,401	1,470	2,389	4,593	1,293	1,134	258	-	-	-
Chile	-	•	-	-	-	-	300	-	-	-	-	-	-	-	-	-	-
China	-	•	-	-	-	-	-	15	-	-	-	-	-	-	-	-	-
Colombia	473	•	344	171	81	62	454	312	-	50	-	-	5	-	-	-	-
Costa Rica	-	•	-	5	-	-	52	46	-	-	-	-	-	-	-	-	-
Cuba	10	•	184	860	167	226	153	539	134	50	-	20	279	25	-	-	-
Curacao	-	•	-	-	10	-	-	-	-	-	-	-	202	-	-	-	-
Dominican Rep	-	•	-	-	-	-	25	-	-	-	-	-	-	-	-	-	-
Ecuador	-	•	-	-	-	-	-	46	-	-	-	-	-	-	-	-	-
England	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Greece	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Guatemala	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haiti	30	•	20	20	5	10	19	66	-	-	-	-	-	-	-	-	-
Hawaii	-	•	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-
Honduras	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iceland	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
India	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jamaica	6	•	-	-	-	-	-	-	-	-	-	-	102	-	-	-	-
Java	-	•	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-
Malta	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[redacted]inique	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[redacted]	144	•	85	309	155	38	85	308	-	-	-	102	1,848	-	-	-	-
Miscellaneous	37	•	-	-	-	-	5,352	-	-	-	-	-	2,784	-	-	-	-
Netherlands	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[redacted]aland	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[redacted]a	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[redacted]	-	•	69	55	91	56	47	35	-	-	-	-	-	-	-	-	-
[redacted]	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[redacted]	-	•	-	11	-	-	22	30	-	-	-	-	51	-	-	-	-
Philippine Is	6	•	110	126	95	21	10	81	-	-	-	-	20	-	-	-	-
Puerto Rico	14	•	120	131	112	69	77	113	10	-	-	16	52	10	-	-	-
Salvador	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scotland	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spain	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweden	-	•	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-
Switzerland	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thailand	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trinidad	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[redacted] Africa	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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INTERROGATORY 6 (a) & (g)

DUPONT EXPORTS OF BANDS BY COUNTRIES

1934 - 1949, INCLUSIVE

M UNITS

Country	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
Argentina	-	•	-	-	255	1,057	250	28	-	487	427	562	613	2,092	-	-
Aruba	-	•	-	10	39	257	25	255	600	40	96	129	715	619	486	-
Australia	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	387
Bahamas	-	•	-	-	10	10	10	-	10	-	-	-	1,331	2,738	1,113	978
Barbadoes	-	•	-	-	-	-	-	57	-	97	-	368	875	1,783	1,122	807
Belgium	-	•	-	-	-	-	-	-	-	-	-	-	-	-	600	5,587
Bermuda	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brasil	-	•	410	414	-	232	459	620	-	42	-	-	195	-	-	101
British Guiana	-	•	-	-	-	-	-	-	-	-	-	-	35	-	-	-
Canada	362	1,403	12,282	24,891	16,405	22,762	24,581	39,740	34,313	21,902	31,944	37,915	53,046	47,696	57,688	63,820
Chile	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	17
China	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Columbia	-	•	100	814	1,052	792	2,364	1,986	1,158	1,631	133	1,741	3,881	5,066	6,318	1,913
Costa Rica	-	•	244	451	151	402	343	619	-	-	-	-	-	-	-	36
Cuba	-	•	139	1,463	317	981	2,123	4,966	9,067	17,875	30,183	14,682	16,139	35,896	17,630	16,959
Curacao	-	•	-	-	-	-	-	257	93	798	120	189	103	1,273	494	408
Dominican Rep.	-	•	-	-	-	51	939	1,585	2,059	3,076	2,501	4,198	5,798	9,887	7,321	5,801
Ecuador	-	•	-	-	-	-	-	-	-	-	100	155	50	854	52	389
England	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	86
Greece	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	850
Guatemala	-	•	-	-	-	-	-	-	-	-	-	-	60	1,170	348	519
Haiti	-	•	-	84	-	22	-	11	-	30	-	-	167	890	847	958
Hawaii	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Honduras	5	•	-	-	-	-	939	2,893	-	-	-	-	-	-	54	39
Iceland	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	87
India	-	•	-	-	-	-	-	-	-	-	-	-	-	634	-	-
Jamaica	-	•	80	168	118	843	393	1,749	1,834	2,152	2,838	745	2,658	6,171	9,946	874
Java	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malta	-	•	-	-	-	-	-	-	-	-	-	-	-	10	-	-
Martinique	-	•	-	-	-	-	-	-	31	-	848	333	454	498	-	-
Mexico	-	•	176	398	1,191	1,416	2,332	2,811	3,878	1,849	5,391	8,079	14,897	18,464	19,403	20,325
Miscellaneous	90	•	-	-	-	-	-	-	-	-	126	(186)	853	80	-	-
Netherlands	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	11
New Zealand	-	•	-	-	-	-	-	-	-	-	-	-	-	-	37	-
Nicaragua	-	•	-	-	-	-	-	-	-	100	-	99	-	-	-	-
Panama	-	•	-	-	-	-	149	110	-	1,301	1,058	1,005	673	1,106	1,347	1,858
Paraguay	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	138
Peru	-	•	-	-	-	-	832	84	-	-	81	-	-	10	-	141
Philippine Is.	-	•	32	-	-	-	-	53	-	-	-	-	-	100	700	1,568
Puerto Rico	91	•	4,512	8,132	8,558	10,866	25,440	33,769	53,438	71,865	69,217	51,704	62,889	33,945	8,872	14,566
Salvador	-	•	2	9	-	-	86	-	-	-	-	85	-	188	840	836
Scotland	-	•	-	45	51	-	49	49	-	-	-	-	-	-	-	-
Spain	-	•	-	-	-	-	-	-	-	-	600	-	-	-	-	-
Sweden	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Switzerland	-	•	-	-	-	-	-	-	-	-	-	-	-	-	10	-
Thailand	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	2,458
Trinidad	-	•	-	-	-	-	-	457	4,960	1,566	3,455	1,399	2,387	4,005	2,152	2,999
Union of So. Africa	-	•	-	-	-	-	-	-	-	-	-	-	-	101	143	893
Uruguay	-	•	-	-	-	-	-	-	-	-	-	-	-	862	-	-
Venezuela	-	•	-	30	11	136	897	1,059	1,455	1,199	4,043	3,914	5,436	9,800	15,205	22,969
Virgin Islands	-	•	183	309	855	-	1,856	1,138	1,416	499	-	860	3,871	2,050	1,806	185

• Not Available

INTERROGATORY NO. 6 (c)

THAT PROPORTION (IN TERMS OF PER CENT) OF THE QUANTITY OF CELLOPHANE AND CAPS AND BANDS DETERMINED IN THE ANSWER TO INTERROGATORY 6 (b) AND 6 (c) WHICH WAS SOLD, DELIVERED TO, OR CONSIGNED FOR THE ACCOUNT OF ANY OF THE ALLEGED CO-CONSPIRATORS IDENTIFIED IN PARAGRAPHS 4 THROUGH 9 OF THE COMPLAINT, BY CALENDAR YEARS, DURING THE PERIOD 1930-1949, INCLUSIVE

None of the quantities of cellophane, caps, or bands reported in answer to 6 (b) and 6 (c) of this interrogatory were sold, delivered to, or consigned for the account of any of the alleged co-conspirators except as noted below.

	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
Plain Cellophane																
Australia	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	96.7
Canada	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	-	-	-	-	-	-	-
England	100.0	98.2	100.0	100.0	100.0	100.0	-	-	-	-	-	-	-	-	-	-
Moistureproof Cellophane																
Canada	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	-	100.0	100.0	-	-	-	93.4
England	100.0	52.0	93.6	100.0	99.5	88.7	-	-	-	-	-	-	-	-	-	-
Scotland	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-
Caps																
Canada	39.9	26.2	49.5	57.2	36.4	59.9	51.6	44.5	19.7	-	-	-	-	-	-	-
Bands																
Canada	-	-	-	-	0.8	-	-	-	-	-	-	-	-	-	-	-
Scotland	-	-	-	100.0	100.0	-	100.0	100.0	-	-	-	-	-	-	-	-

INTERROGATORY NO. 6 (e)

THE QUANTITY OF CELLOPHANE OR CAPS AND BANDS PURCHASED OR RECEIVED BY DU PONT FROM SOURCES LOCATED BEYOND THE CONTINENTAL LIMITS OF THE UNITED STATES, DESIGNATING BY NAME THE MANUFACTURER OF SAID PRODUCTS, FOR THE CALENDAR YEARS 1934 - 1949, INCLUSIVE

Du Pont has neither purchased nor received any Cellophane or caps or bands from any source located beyond the continental limits of the United States during the years 1934 through 1949, inclusive, with the possible exception of non-commercial sample lots.

GOV'T EXHIBIT NO. 412
Civil Action 1218.

INFORMATION REGARDING
SYLVANIA INDUSTRIAL CORP.
AND SYLVANIA DIVISION
AS REQUESTED BY THE
DEPARTMENT OF JUSTICE

SYLVANIA INDUSTRIAL CORPORATION TO
SEPTEMBER 12, 1946 AND AMERICAN VISCOSE
CORPORATION THEREAFTER

PRODUCTION OF CELLOPHANE

1930 TO 1948 INCLUSIVE

(PREPARED FROM COMPANY COST RECORDS)

ANSWER TO 1-A-B AND C

	Pounds		
	Sylphrap	Moistureproof	Total
1930	Figures - not available		
1931	2,721,308	1,029,843	3,751,151
1932	4,993,693	2,038,396	7,032,089
1933	4,998,562	3,368,040	8,366,602
1934	4,985,688	6,226,719	11,212,407
1935	5,504,498	8,284,031	13,788,529
1936	8,062,765	11,936,890	19,999,655
1937	6,802,811	13,887,671	20,690,482
1938	7,556,428	13,734,644	21,291,072
1939	9,344,967	16,515,672	25,860,639
1940	10,209,725	18,932,778	29,142,503
1941	12,150,171	22,201,130	34,351,301
1942	5,595,119	24,903,269	30,498,388
1943	4,407,138	25,672,455	30,079,593
1944	3,581,182	25,657,614	29,238,796
1945	5,029,760	25,582,595	30,612,355
1946	5,332,171	30,184,233	35,516,404
1947	5,813,930	35,232,378	41,046,308
1948	7,436,723	39,242,543	46,679,266

SYLVANIA INDUSTRIAL CORPORATION TO SEPTEMBER 12, 1946 AND AMERICAN VISCOSE CORPORATION THEREAFTER

PRODUCTION OF BANDS

(PREPARED FROM COMPANY COST RECORDS)

Answer to 1-D

Year	Pieces
1930	--
1931	--
1932	--
1933	--
1934	22,275,340
1935	39,141,526
1936	4,267,269
1937	49,467,065
1938	65,792,78[illegible]
1939	62,645,46[illegible]
1940	68,364,122
1941	103,254,061
1942	127,335,212
1943	85,633,414
1944	122,812,855
1945	101,753,776
1946	154,319,174
1947	119,749,226
1948	83,409,141

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SYLVANIA INDUSTRIAL CORPORATION

PRODUCTION OF CELLULOSIC CAPS

(PREPARED FROM COMPANY COST RECORDS)

Answer to 1-E

Year	Pieces
1930	--
1931	--
1932	--
1933	293,500
1934	15,343,872
1935	20,521,847
1936	5,585,155
1937	2,203,124
1938	--
1939	--
1940	--
1941	--
1942	--
1943	--
1944	--
1945	--
1946	--
1947	--
1948	--

Note:
Business discontinued in 1937 and Department dismantled in 1938 and 1939 -

SYLVANIA INDUSTRIAL CORPORATION TO SEPTEMBER 12, 1946 AND THEREAFTER AMERICAN VISCOSE CORPORATION

ANSWER TO 1-F-1

Potential Plant Capacity of Cellophane Film for 1930 to Date

Year	Pounds
1930	1,000,000
1931	4,800,000
1932	9,300,000
1933	10,000,000
1934	12,900,000
1935	15,300,000
1936	20,000,000
1937	23,700,000
1938	26,400,000
1939	30,000,000
1940	30,000,000
1941	36,600,000
* 1942	36,600,000
* 1943	36,600,000
* 1944	36,600,000
1945	36,600,000
1946	36,600,000
** 1947	45,500,000
1948	47,000,000
1949	51,000,000

* Making war material at slow speeds and no work being done to maintain machines in good mechanical condition.

** Started general maintenance to machines.

(Prepared by Mr. C. W. Beard, Plant Superintendant)

SYLVANIA INDUSTRIAL CORPORATION TO
SEPTEMBER 12, 1946, AND THEREAFTER

AMERICAN VISCOSE CORPORATION

ANSWER TO 1-F-2

Number of Cellophane Casting Machines in Operation Since 1930

With Speed and Size

Year	No. of Casting Machines	Speed in Meters/min.	Size
1930	3	20	3 - 96" casting heads
1931	6	20	6 - 96" casting heads
1932	8	20	8 - 96" casting heads
1933	10	20	10 - 96" casting heads
1934	12	20	12 - 96" casting heads
1935	15	22	15 - 96" casting heads
1936	17	25	15 - 96" casting heads 1 - 106" casting heads
1937	18	27	15 - 96" casting heads 2 - 106" casting heads
1938	19	30	15 - 96" casting heads 4 - 106" casting heads
1939	19	33	15 - 96" casting heads 4 - 106" casting heads
1940	19	33	15 - 96" casting heads 4 - 106" casting heads
1941	21	35	15 - 96" casting heads 4 - 106" casting heads 2 - 112" casting heads
1942	21	35	15 - 96" casting heads 4 - 106" casting heads 2 - 112" casting heads
1943	21	35	15 - 96" casting heads 4 - 106" casting heads 2 - 112" casting heads
1944	21	35	15 - 96" casting heads 4 - 106" casting heads 2 - 112" casting heads
1945	21	35	15 - 96" casting heads 4 - 106" casting heads 2 - 112" casting heads
1946	21	40	15 - 96" casting heads 4 - 106" casting heads 2 - 112" casting heads

(Prepared by Mr. C. W. Beard, Plant Superintendent)

SYLVANIA INDUSTRIAL CORPORATION TO
SEPTEMBER 12, 1946, AND THEREAFTER

AMERICAN VISCOSE CORPORATION

ANSWER TO 1-F-2 (Continued)

Year	No. of Casting Machines	Speed in Meters/min.	Size
1947	21	45	15 - 96" casting heads 4 - 106" casting heads 2 - 112" casting heads
1948	21	50	15 - 96" casting heads 4 - 106" casting heads 2 - 112" casting heads
1949	21	55	15 - 96" casting heads 4 - 106" casting heads 2 - 112" casting heads

(Prepared by Mr. C. W. Beard, Plant Superintendent)

UNITED STATES v. E. I. DU PONT DE NEMOURS & COMPANY

Answers to information requested by Department of Justice in a letter addressed to Mr. John G. Jackson of Jackson, Nash, Brophy, Barringer and Brooks, dated September 14, 1950.

Answer to A-1 and A-2

Our Annual Potential Plant Capacity figures represent production that was possible for us to make each year under the most favorable conditions, depending upon our knowledge of making cellophane of acceptable quality, at a production rate that we thought could be maintained by the machines.

The Annual Rated Capacity of a spinning machine is never quite attained because of variance in market conditions, mechanical condition of equipment, constant change in operating personnel, and frequent changes in specifications to meet particular needs.

Answer to B-1

The gauge of cellophane film to which the reported "Speed in Meters per Minute" applies is .00086" thickness - commonly known as 300 gauge cellophane.

Answer to B-2

Production rate per unit of time for our three standard gauges of cellophane is shown by the following factors or ratio.

300 Gauge - 1.00
450 Gauge - 1.20
600 Gauge - .80

(The above information was prepared by Mr. C. W. Beard, Manufacturing Superintendent).

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SYLVANIA INDUSTRIAL CORPORATION TO
SEPTEMBER 12, 1946 AND THEREAFTER
AMERICAN VISCOSE CORPORATION

ANSWER TO 1-F-2a

Number of Coating Machines in Operation for Each Year Since 1930, Together with Size & Speed

All coating machines, except No. 1 and the two machines built in 1943, were built to handle cellophane from any spinning machine.

No. 1 coating machine was quite small and was completely dismantled in 1935.

One of the other two small machines making Army cover material was dismantled in 1946.

Year	No. of Machines	Speed in Ft./min.
1930	1	80
1931	3	80
1932	4	120
1933	5	120
1934	7	120
1935	6	135
1936	7	135
1937	10	135
1938	10	135
1939	11	135
1940	12	150
1941	12	160
1942	14	180
1943	16	200
1944	16	200
1945	16	200
1946	15	200
1947	15	200
1948	15	235
1949	15	250

(Prepared by Mr. C. W. Beard, Plant Superintendant)

SYLVANIA INDUSTRIAL CORPORATION
TO SEPTEMBER 12, 1946 - AMERICAN
VISCOSE CORPORATION THEREAFTER

Answer to 1-F-3

Number of Cellulose Caps and Bands Machines - Nature of Machine and Speed

There is no information available on the very small production of viscose caps. Ther were no machines involved since these caps were formed on individual glass forms.

The first Bands machine was built in 1934 and it ran 25 - 30 ft./min.

No. 2 Bands machine was built in 1940 and ran 30 - 35 ft./min.

No. 3 Bands machine was built in 1945 and ran 25 - 30 ft./min.

No. 4 Bands machine was built in 1947 and runs 25 ft./min.

A Bands machine is a casting machine as is a cellophane machine, except in place of casting a sheet the bands machine casts a tube. This tube is processed and plasticized in the same manner as cellophane.

(Prepared by Mr. C. W. Beard, Plant Superintendant)

SYLVANIA INDUSTRIAL CORPORATION TO
SEPTEMBER 12, 1946 AND AMERICAN VISCOSE
CORPORATION THEREAFTER

ANSWER TO 1-G-1

Briefly the improvements made during the past four years which is reflected in improved production are as follows:

1. General maintenance to all casting machines. Machines were badly neglected during the war years due to inability to obtain sufficient mechanics or material to keep up the maintenance. This meant practically rebuilding each casting machine.

2. Improved type of machine rolls, bearings, and drives.

3. Replacement of wood ventilating hoods with metal hoods which greatly reduced breakage of web in wet end.

4. Improvement of quality of viscose.

(Prepared by Mr. C. W. Beard, Plant Superintendant)

* * * * * * *

The increased production since the war has been obtained by getting more production from installed equipment. For example - see schedule showing number of casting machines, operating speed 1945--35 meters, 1949--55 meters. See schedule of coating machines speed 1945--200 feet per minute, 1949--250 feet per minute.

SYLVANIA INDUSTRIAL CORPORATION
TO SEPTEMBER 12, 1946 - AMERICAN
VISCOSE CORPORATION THEREAFTER

Answer to 1-G-2

The American Viscose Corporation is working on a program of expanding its cellophane capacity - which is now nearly 56,000,000 pounds per year - upwards to 100,000,000 pounds per year - the exact future capacity will depend on the quantity which can be made by all plant facilities at the most reasonable per pound cost of additional capacity . For instance it may be found that the expansion will be stopped at 90,000,000 or 95,000,000 pounds per year instead of 100,000,000 pounds per year. Exact information on this point cannot be supplied until the engineering plans for the expansion have been completed.

GOV'T EXHIBIT NO. 414
Collection 1216

SYLVANIA INDUSTRIAL CORPORATION TO SEPTEMBER 12, 1946 AND AMERICAN VISCOSE CORPORATION THEREAFTER

DIRECT & INDIRECT SALES 1930 TO 1948

(PREPARED FROM SALES RECORDS)

ANSWER TO QUESTION 6-DISTRIBUTION

	6(A)(1) TOTAL DIRECT SALES		6(B)(1) TOTAL INDIRECT SALES		TOTAL
	Poundage	Dollars	Poundage	Dollars	Dollars
1930	Not Available	$ 607,422.65	Not Available	$ 184,008.63	$ 791,431.28
1931	" "	1,429,761.22	" "	408,171.06	1,837,932.58
1932	" "	1,769,829.33	" "	1,281,523.44	3,051,352.17
1933	" "	2,336,993.40	" "	1,623,955.67	3,960,949.07
1934	" "	3,264,251.93	" "	1,966,108.71	5,230,360.64
1935	" "	3,994,324.81	" "	2,008,518.42	6,002,843.23
1936	" "	5,134,144.53	" "	2,333,337.59	7,467,482.12
1937	" "	5,499,263.74	" "	2,216,885.43	7,716,149.17
1938	" "	6,231,087.86	" "	2,640,927.24	8,872,015.10
1939	" "	6,275,868.02	" "	3,664,208.35	9,940,076.37
1940	" "	6,551,464.66	" "	3,778,321.44	10,329,786.10
1941	" "	8,460,204.02	" "	4,702,223.58	13,162,427.60
1942	" "	10,275,235.10	" "	3,498,071.09	13,773,306.19
1943	" "	8,780,715.43	" "	3,834,452.93	12,615,168.36
1944	" "	8,356,863.96	" "	3,927,256.56	12,284,120.52
1945	" "	8,619,969.23	" "	3,951,439.03	12,571,408.26
1946	" "	8,953,313.66	" "	5,572,287.17	14,525,600.83
1947	" "	10,286,018.95	" "	6,782,383.70	17,068,402.65
1948	" "	12,595,614.05	" "	8,388,820.54	20,984,434.59

6(A)(2) - Not Available

6(B)(2)
Indirect sales include

Type of Buyers
Converters
Fabricators
Domestic Agents
Jobbers, etc.

Number of Customers Not Available

6(B)(3) - Not Available

SYLVANIA INDUSTRIAL CORPORATION TO SEPTEMBER 12, 1946 AND AMERICAN VISCOSE CORPORATION THEREAFTER
DIRECT & INDIRECT SALES 1930 TO 1948
(PREPARED FROM SALES RECORDS)

GOVT EXHIBIT NO. 414

ANSWER TO QUESTION 6-DISTRIBUTION

6(A)(2)
DIRECT SALES

1930 to 1940 Not Available

TEN BIGGEST CUSTOMERS IN THE YEAR 1941

	Poundage*	Dollars
WARD BAKING CO.	1,267,704	$519,758.66
R. J. REYNOLDS TOBACCO CO.	1,240,809	$508,731.87
GREAT A & P TEA CO.	874,576	$358,576.19
PURITY BAKERIES, INC.	747,358	$306,417.12
AMERICAN TOBACCO CO.	648,121	$265,729.96
QUALITY BAKERS OF AMERICA COOP.	450,321	$184,631.69
F. W. WOOLWORTH CO.	343,428	$140,805.63
AMERICAN CHICLE CO.	278,182	$114,054.99
SWIFT AND CO.	255,080	$104,582.91
COLUMBIA BAKING CO.	250,526	$103,945.66

TEN BIGGEST CUSTOMERS IN THE YEAR 1942

	Poundage*	Dollars
R. J. REYNOLDS TOBACCO CO.	1,742,703	$714,508.3
WARD BAKING CO.	1,390,156	$569,964.16
GREAT A & P TEA CO.	1,178,865	$483,334.66
PURITY BAKERIES, INC.	805,257	$330,155.38
AMERICAN TOBACCO CO.	651,618	$267,163.55
THE KROGER CO.	619,801	$254,118.80
QUALITY BAKERS OF AMERICA COOP.	529,134	$216,945.06
AMERICAN CHICLE CO.	324,829	$133,179.90
GENERAL BAKING CO.	314,455	$128,926.87
COLUMBIA BAKING CO.	307,708	$126,160.66

TEN BIGGEST CUSTOMERS IN THE YEAR 1943

	Poundage*	Dollars
R. J. REYNOLDS TOBACCO CO.	1,331,366	$545,860.13
WARD BAKING CO.	1,204,781	$493,960.59
GREAT A & P TEA CO.	903,706	$370,519.63
PURITY BAKERIES, INC.	542,825	$222,558.52
AMERICAN TOBACCO CO.	511,497	$209,714.07
QUALITY BAKERS OF AMERICA COOP.	474,543	$194,562.75
THE KROGER CO.	448,988	$184,086.46
GENERAL BAKING CO.	274,389	$112,499.85
COLUMBIA BAKING CO.	269,812	$110,623.31
AMERICAN BAKERIES CO.	256,567	$105,192.84

TEN BIGGEST CUSTOMERS IN THE YEAR 1944

	Poundage*	Dollars
R. J. REYNOLDS TOBACCO CO.	1,308,786	$536,602.57
WARD BAKING CO.	1,052,632	$431,579.36
GREAT A & P TEA CO.	664,782	$272,560.74
PURITY BAKERIES, INC.	533,551	$218,756.19
THE KROGER CO.	442,305	$181,345.11

ANSWER TO 6-A-2 (Continued)

TEN BIGGEST CUSTOMERS IN THE YEAR 1944 (Continued)

	Poundage*	Dollars
QUALITY BAKERS OF AMERICA COOP.	440,330	$180,535.65
AMERICAN TOBACCO CO.	430,807	$176,630.88
COLUMBIA BAKING CO.	275,500	$112,955.32
P. LORILLARD CO.	264,583	$108,479.43
AMERICAN BAKERIES CO.	256,071	$104,989.39

TEN BIGGEST CUSTOMERS IN THE YEAR 1945

	Poundage*	Dollars
R. J. REYNOLDS TOBACCO CO.	1,383,200	$567,110.14
WARD BAKING CO.	863,675	$354,106.57
GREAT A & P TEA CO.	612,978	$251,321.27
AMERICAN TOBACCO CO.	474,297	$194,461.86
QUALITY BAKERS OF AMERICA COOP.	470,978	$193,101.02
PURITY BAKERIES, INC.	401,372	$164,562.56
THE KROGER CO.	306,220	$125,550.29
P. LORILLARD CO.	257,275	$105,483.09
COLUMBIA BAKING CO.	245,797	$100,776.85
AMERICAN BAKERIES CO.	217,228	$89,063.48

TEN BIGGEST CUSTOMERS IN THE YEAR 1946

	Poundage*	Dollars
R. J. REYNOLDS TOBACCO CO.	1,773,312	$727,057.98
AMERICAN TOBACCO CO.	1,406,758	$576,771.01
WARD BAKING CO.	1,145,939	$469,835.11
GREAT A & P TEA CO.	725,488	$297,450.45
QUALITY BAKERS OF AMERICA COOP.	551,059	$225,934.36
PURITY BAKERIES, INC.	459,333	$188,326.73
P. LORILLARD CO.	358,410	$146,948.34
THE KROGER CO.	315,056	$129,173.02
SUNSHINE BISCUIT CO.	313,699	$128,616.96
COLUMBIA BAKING CO.	301,572	$123,644.53

TEN BIGGEST CUSTOMERS IN THE YEAR 1947

	Poundage*	Dollars
R. J. REYNOLDS	2,254,462	$924,329.54
AMERICAN TOBACCO CO.	1,905,380	$781,208.21
WARD BAKING CO.	1,610,744	$660,405.27
GREAT A & P TEA CO.	879,030	$360,402.65
PURITY BAKERIES, INC.	606,848	$248,807.79
QUALITY BAKERS OF AMERICA COOP.	566,564	$232,291.59
P. LORILLARD CO.	543,473	$222,824.19
THE KROGER CO.	489,815	$200,824.20
AMERICAN CHICLE CO.	395,016	$161,956.82
F. W. WOOLWORTH CO.	315,600	$129,396.06

ANSWER TO 6-A-2 (Continued)

TEN BIGGEST CUSTOMERS IN THE YEAR 1948

	Poundage*	Dollars
AMERICAN TOBACCO CO.	2,184,540	$1,0[illegible]3.05
GREAT A & P TEA CO.	1,906,844	$934,353.76
R. J. REYNOLDS TOBACCO CO.	1,928,911	$922,587.36
WARD BAKING CO.	1,445,472	$708,231.60
P. LORILLARD CO.	689,839	$331,123.05
QUALITY BAKERS OF AMERICA COOP.	624,422	$305,967.22
PURITY BAKERIES, INC.	491,921	$241,041.53
THE KROGER CO.	437,573	$214,410.90
GENERAL BAKING CO.	327,323	$160,388.66
AMERICAN CHICLE CO.	299,063	$146,541.13

*Approximate

ANSWER TO 6-B-2

INDIRECT CUSTOMERS

	1935*	1940	1945	1948
CONVERTERS	45	53	63	93
FABRICATORS	3	3	3	3
AGENTS	6	6	3	3
JOBBERS	NO DEFINITE JOBBER SET-UP.			

*Estimated

ANSWER TO 6-B-3

1930 to 1940 Not Available

INDIRECT SALES
(CONVERTERS)

TEN BIGGEST CUSTOMERS IN THE YEAR 1941

	Poundage*	Dollars
DANIELS MFG. CO.	1,118,035	$436,033.80
ONEIDA PAPER PRODUCTS	893,977	$348,651.15
CRYSTAL TUBE CORP.	709,170	$276,576.39
UNION BAG & PAPER CORP.	499,063	$194,634.79
THOMAS M. ROYAL CO.	460,260	$179,501.46
AMERICAN PAPER GOODS CO.	356,579	$139,066.00
CUNEO PRESS, INC.	262,066	$102,206.11
FORBES LITHOGRAPH MFG. CO.	174,184	$71,415.75
YORKVILLE PAPER CO., INC.	175,904	$68,602.68
KELLOGG CONTAINER DIV.-U.S. ENVELOPE	161,611	$63,028.37

SYLVANIA INDUSTRIAL CORPORATION TO
SEPTEMBER 12, 1946, AND THEREAFTER
AMERICAN VISCOSE CORPORATION

ANSWER TO 6-B-3 (Continued)

TEN BIGGEST CUSTOMERS IN THE YEAR 1942

	Poundage*	Dollars
SHELLMAR PRODUCTS CORP.	682,302	$504,903.77
DANIELS MFG. CO.	763,931	$297,993.12
CRYSTAL TUBE CORP.	692,570	$270,102.40
ONEIDA PAPER PRODUCTS	565,777	$220,653.33
UNION BAG & PAPER CORP.	555,976	$216,830.85
FORBES LITHOGRAPH MFG. CO.	347,826	$142,608.71
DOBECKMUN CO.	179,084	$132,522.27
CUNEO PRESS, INC.	335,955	$131,022.45
THOMAS M. ROYAL CO.	321,100	$125,229.35
CRYSTAL TRANSPARENT CORP.	80,299	$59,421.68

TEN BIGGEST CUSTOMERS IN THE YEAR 1943

	Poundage*	Dollars
SHELLMAR PRODUCTS CORP.	725,858	$537,135.40
DANIELS MFG. CO.	796,655	$310,695.45
CRYSTAL TUBE CORP.	682,073	$266,008.64
UNION BAG & PAPER CORP.	605,971	$236,328.79
THOMAS M. ROYAL CO.	574,380	$224,008.55
ONEIDA PAPER PRODUCTS	573,684	$223,737.06
DOBECKMUN CO.	225,279	$166,706.49
CUNEO PRESS, INC.	427,403	$166,687.22
CRYSTAL TRANSPARENT CORP.	162,137	$119,981.66
FORBES LITHOGRAPH MFG. CO.	291,825	$119,648.39

TEN BIGGEST CUSTOMERS IN THE YEAR 1944

	Poundage*	Dollars
SHELLMAR PRODUCTS CORP.	1,341,813	$670,906.99
CRYSTAL TUBE CORP.	779,580	$304,036.37
THOMAS M. ROYAL CO.	648,246	$252,816.25
DANIELS MFG. CO.	578,778	$225,723.51
UNION BAG & PAPER CORP.	400,048	$156,018.93
ONEIDA PAPER PRODUCTS	350,276	$137,778.02
CUNEO PRESS, INC.	291,747	$113,781.36
ROTO LITH, LTD.	289,493	$112,902.57
DOBECKMUN CO.	146,007	$73,003.93
AMERICAN PAPER GOODS CO.	179,502	$70,006.00

TEN BIGGEST CUSTOMERS IN THE YEAR 1945

	Poundage*	Dollars
SHELLMAR PRODUCTS CORP.	1,002,036	$501,018.59
CRYSTAL TUBE CORP.	670,553	$261,515.75
THOMAS M. ROYAL CO.	639,609	$249,447.71
DOBECKMUN CO.	498,380	$249,190.00
UNION BAG & PAPER CORP.	589,601	$229,944.56
ONEIDA PAPER PRODUCTS	516,257	$201,340.47
DANIELS MFG. CO.	434,032	$169,272.79
ROTO LITH, LTD.	274,586	$107,088.57
COMET ENVELOPE & PAPER CO.	246,737	$96,227.78
STANDARD PRINTING CO.	246,563	$96,159.71

SYLVANIA INDUSTRIAL CORPORATION TO
SEPTEMBER 12, 1946, AND THEREAFTER
AMERICAN VISCOSE CORPORATION

ANSWER TO 6-B-3 (Continued)

TEN BIGGEST CUSTOMERS IN THE YEAR 1946

	Poundage*	Dollars
CRYSTAL TUBE CORP.	876,918	$341,99[illegible]
UNION BAG & PAPER CORP.	849,106	$331,151.70
SHELLMAR PRODUCTS CORP.	821,878	$320,532.54
DANIELS MFG. CO.	700,594	$273,231.76
ONEIDA PAPER PRODUCTS	609,375	$237,656.41
THOMAS M. ROYAL CO.	445,083	$173,582.72
FORBES LITHOGRAPH MFG. CO.	351,267	$144,019.53
NASHUA GUMMED & COATED PAPER CO.	351,114	$136,934.61
STANDARD PRINTING CO.	309,167	$120,575.39
AMERICAN PAPER GOODS CO.	300,070	$117,027.59

TEN BIGGEST CUSTOMERS IN THE YEAR 1947

	Poundage*	Dollars
DANIELS MFG. CO.	1,502,437	$593,462.96
CRYSTAL TUBE CORP.	959,861	$383,9[illegible].49
UNION BAG & PAPER CORP.	912,622	$365,0[illegible].00
SHELLMAR PRODUCTS CORP.	723,412	$289,365.02
ONEIDA PAPER PRODUCTS	646,219	$258,487.92
STANDARD PRINTING CO.	566,410	$226,564.01
CRYSTAL TRANSPARENT CORP.	426,246	$170,498.42
NASHUA GUMMED & COATED PAPER CO.	408,145	$163,258.13
FORBES LITHOGRAPH MFG. CO.	393,492	$161,331.91
THOMAS M. ROYAL CO.	368,450	$147,380.19

TEN BIGGEST CUSTOMERS IN THE YEAR 1948

	Poundage*	Dollars
SHELLMAR PRODUCTS CORP.	1,596,536	$750,371.92
DANIELS MFG. CO.	1,246,378	$560,870.33
CRYSTAL TUBE CORP.	1,173,996	$540,038.44
UNION BAG & PAPER CORP.	726,339	$341,379.37
STANDARD PRINTING CO.	588,154	$276,432.63
ONEIDA PAPER PRODUCTS	511,993	$240,636.94
YORKVILLE PAPER CO., INC.	369,923	$173,864.17
ROTO LITH, LTD.	336,138	$157,985.18
FORBES LITHOGRAPH MFG. CO.	312,907	$153,324.82
HIGHLAND SUPPLY CORP.	299,006	$140,533.09

INDIRECT SALES
(FABRICATORS)

ONLY CUSTOMERS IN THE YEAR 1941

	Poundage*	Dollars
HY-SIL MFG. CO.	243,615	$95,010.10
NEW YORK MDSE. CO., INC.	192,891	$75,227.77
GEO. FRANKE & SONS CO.	63,130	$24,621.08

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SYLVANIA INDUSTRIAL CORPORATION TO
SEPTEMBER 12, 1946, AND THEREAFTER
AMERICAN VISCOSE CORPORATION

ANSWER TO 6-B-3 (Continued)

ONLY CUSTOMERS IN THE YEAR 1942

	Poundage*	Dollars
NEW YORK MDSE. CO., INC.	120,850	$47,131.50
HY-SIL MFG. CO.	56,963	$22,215.70

ONLY CUSTOMERS IN THE YEAR 1943

	Poundage*	Dollars
NEW YORK MDSE. CO., INC.	79,001	$30,810.67
HY-SIL MFG. CO.	53,618	$20,911.36

ONLY CUSTOMERS IN THE YEAR 1944

	Poundage*	Dollars
HY-SIL MFG. CO.	116,714	$45,518.53
NEW YORK MDSE. CO., INC.	82,244	$32,075.29

ONLY CUSTOMERS IN THE YEAR 1945

	Poundage*	Dollars
NEW YORK MDSE. CO., INC.	130,629	$50,945.36
HY-SIL MFG. CO.	129,652	$50,564.30

ONLY CUSTOMERS IN THE YEAR 1946

	Poundage*	Dollars
NEW YORK MDSE. CO., INC.	303,202	$117,248.96
HY-SIL MFG. CO.	206,780	$80,644.46
GEO. FRANKE & SONS, CO.	22,864	$8,917.16

ONLY CUSTOMERS IN THE YEAR 1947

	Poundage*	Dollars
NEW YORK MDSE. CO., INC.	338,508	$132,015.18
HY-SIL MFG. CO.	184,158	$71,821.80
GEO. FRANKE & SONS CO.	43,582	$16,997.11

ONLY CUSTOMERS IN THE YEAR 1948

	Poundage*	Dollars
NEW YORK MDSE. CO., INC.	313,700	$134,891.09
HY-SIL MFG. CO.	172,533	$74,189.35
GEO. FRANKE & SONS, CO.	95,564	$41,092.56

INDIRECT SALES
(AGENTS)

ONLY AGENTS IN THE YEAR 1941

	Poundage*	Dollars
BLAKE, MOFFITT & TOWNE	1,447,153	$564,389.74
DIXON & CO.	207,250	$80,827.76
MALONE MORGAN	176,526	$68,845.35

SYLVANIA INDUSTRIAL CORPORATION TO SEPTEMBER 12, 1946, AND THEREAFTER AMERICAN VISCOSE CORPORATION

ANSWER TO 6-B-3 (Continued)

ONLY AGENTS IN THE YEAR 1942

	Poundage*	Dollars
BLAKE, MOFFITT & TOWNE	997,860	$389,165.73
DIXON AND CO.	205,465	$80,131.60
MALONE MORGAN	143,974	$56,150.22

ONLY AGENTS IN THE YEAR 1943

	Poundage*	Dollars
BLAKE, MOFFITT & TOWNE	1,563,953	$609,941.84
DIXON & CO.	265,951	$103,720.96
MALONE MORGAN	159,203	$62,089.29

ONLY AGENTS IN THE YEAR 1944

	Poundage*	Dollars
BLAKE, MOFFITT & TOWNE	1,571,460	$612,869.42
DIXON & CO.	265,514	$103,550.76
MALONE MORGAN	161,683	$63,056.40

ONLY AGENTS IN THE YEAR 1945

	Poundage*	Dollars
BLAKE, MOFFITT & TOWNE	1,702,707	$684,055.90
DIXON & CO.	296,452	$115,616.32
MALONE MORGAN	183,133	$71,422.07

ONLY AGENTS IN THE YEAR 1946

	Poundage*	Dollars
BLAKE, MOFFITT & TOWNE	1,553,830	$605,994.08
DIXON & CO.	342,503	$133,576.24
MALONE MORGAN	152,071	$59,307.80

ONLY AGENTS IN THE YEAR 1947

	Poundage*	Dollars
BLAKE, MOFFITT & TOWNE	1,990,801	$776,412.63
DIXON & CO.	334,228	$130,349.10
MALONE MORGAN	164,367	$64,103.44

ONLY AGENTS IN THE YEAR 1948

	Poundage*	Dollars
DIXON & CO.	454,755	$178,345.94
BLAKE, MOFFITT & TOWNE	2,579,660	$1,109,255.87
MALONE MORGAN	95,893	$41,234.49

*Approximate

Reported to Board 5/21/28

GOVT EXHIBIT NO. 415
Civil Action 1216

DU PONT RAYON COMPANY

EXECUTIVE COMMITTEE

Meeting #5 (Regular Meeting) held at the office of the Company, New York City, 10.00 a.m., Friday, May 4, 1928.

PRESENT: L. A. Yerkes, in the Chair,
M. duPont Lee,
B. M. May,
C. W. Phellis.

ALSO: F. W. Pickard (part of the meeting)

ABSENT: Maxwell Moore.

DUTIES OF DEPARTMENT HEADS:

After discussion, it was moved and unanimously carried that a copy of V.P. M. Moore's draft, dated April 10, 1928 (Sec'y. No. 10) be submitted to the Heads of Departments, and that the latter be requested to meet with this Committee in New York City on Thursday, May 10, 1928, at 10.00 a.m. in order to discuss this subject in detail.

FORECAST OF CHEMICAL AND MECHANICAL EXPERIMENTAL EXPENSE:

After discussion, the Secretary was requested to list this subject for consideration at the next meeting of the Committee.

APPROPRIATION REQUEST C-1316 - $6,000. BUFFALO PLANT NO. 1 and OLD HICKORY-TRIAL LOT OF ZENITH GEAR PUMPS:

After discussion, it was moved and unanimously carried that the above mentioned appropriation request be granted. The Secretary was requested to point out to the General Managers of the Technical and Rayon Departments that in view of the excellent test results obtained some time ago on this type of pump, our action appears to be slow in now ordering a larger number for more complete trials, and to inquire whether this was a case of having positive and interesting information of experimental results in our files which were not utilized until we visited the plant of the Fiberloid Company where the same apparatus was in use.

SIXTH CELLOPHANE CASTING MACHINE:

Report was received from General Manager J. E. Hatt of the Cellophane Department, dated April 30, 1928, outlining the Cellophane sales versus production situation and recommending that he be authorized to prepare detailed appropriation request covering installation of the Sixth Casting Machine. After detailed discussion, it was moved and unanimously carried that this report be ordered filed, and that the following resolution, proposed by V.P. B. M. May, be made to:-

WHEREAS, The Board of Directors at meeting held November 21, 1927 acted favorably on an appropriation request for $262,000., as per the President's report of November 15, 1927, involving the installation of Casting Machine No. 5, and.

5623

WHEREAS, the said appropriation of $262,000. included:-

(1) Building space sufficient for Casting Machine No. 6;
(2) Fume stack capacity sufficient for Casting Machine No. 7, and

WHEREAS, General Manager J.E. Hatt, under date of April 30, 1928, has requested authority for the installation of Casting Machine No. 6 at an estimated cost of $308,000. in which figure there is included $11,000. for fume stack, the funds for which have already been authorized, as related above, and,

WHEREAS, the operation of six casting machines will give us an annual capacity of 3,960,000 pounds of Cellophane, and,

WHEREAS, our annual sales have been:-

1925 - 1,008,000 pounds,
1926 - 1,740,000 pounds,
1927 - 2,005,000 pounds, and

WHEREAS, Forecast No. 1 estimated for 1928 sales of 2,500,000 pounds, and for the first four months of 1928 compared with actual as follows:-

Month	Forecast (pounds)	Actual (pounds)
January	180,000	189,000
February	180,000	206,000
March	175,000	223,000
April	160,000	222,000
TOTAL	675,000	840,000

or 25% in excess of Forecast, and,

WHEREAS, the actual for the first four months of 1928 compared with 1927 shows:-

Month	1928 Actual (pounds)	1927 Actual (pounds)
January	189,000	138,000
February	206,000	121,000
March	223,000	133,000
April	222,000	113,000
TOTAL -	840,000	505,000

or 1928 is 67% ahead of actual for 1927 for first four months, which, if maintained for balance of year, will result in sales of 3,340,000 pounds which is equivalent to production of five machines, and,

WHEREAS, Moisture-Proof Cellophane sales are increasing at an encouraging rate and into fields where regular Cellophane is not adaptable, and,

WHEREAS, Imports have been estimated at 36,000 pounds per month which may be materially reduced if our suit for increase in the tariff is favorably decided, thus throwing upon this Company the responsibility of supplying the demand for an article of which it is the exclusive manufacturer in this Country,

THEREFORE, BE IT RESOLVED, that the Executive Committee will act favorably upon a project and will recommend favorable action to the Board of Directors on the basis of:-

(1) Ripening room equipment to provide for the sixth machine:

(2) The Sixth Casting Machine;
(3) Necessary equipment in Finishing Area for the Sixth Machine;
(4) Necessary power lines and miscellaneous equipment to round out the plant for complete operation of six machines, it being understood that this entire project is estimated in a preliminary way to cost around $300,000., the item for fume stack having already been appropriated when Machine No. 5 was authorized, and,

RESOLVED FURTHER, that the General Manager of the Cellophane Department be requested to submit to the Executive Committee a formal appropriation request covering the Sixth Casting Machine at the earliest possible date.

In connection with the discussion concerning this subject, the Secretary was requested to inquire of the General Manager of the Technical Department as to reason for the large difference between the most recent estimate of around $300,000. and the earlier estimate by the Engineering Division of $411,100.

SELLING PRICE CELLOPHANE -
MOISTURE PROOF VS. PLAIN TRANSPARENT:

Report was received from General Manager J.E. Hatt of the Cellophane Department, dated May 1, 1928, outlining the comparative price situation in connection with Plain Transparent and Moisture Proof Cellophane, commenting also on current and prospective cost figures, and asking for an expression from this Committee as to advisability of increasing the price differential of the Moisture Proof over the price of the Plain Transparent. After considerable discussion, during which Messrs. F. W. Pickard and J. E. Hatt were present, it was moved and unanimously carried that it was the sense of this Committee that the price of Plain Transparent Cellophane should be reduced in the near future, but that the price of Moisture Proof Cellophane should not be changed at this time. It was also the Committee's feeling that the General Manager of the Cellophane Department should arrange with the General Manager of the Technical Department to lay out a systematic course of experiments with the object in view of effecting a prompt reduction in waste, a lower cost of Moisture Proof Cellophane, and to determine whether or not Cellophane of lower gauge than 330 could not be used for Moisture Proof purposes so as to give a finished Moisture Proof product of the same gauge as our regular stock, namely, 330, it being the understanding of the Committee that the present Moisture Proof is of approximately 400 gauge. The Committee recalls that this was necessary in the early stages of the Moisture Proof development, but questions whether recent improvements both in our regular stock and in the moisture proofing process would not allow of the lower gauge, thus reducing quite considerably the cost of Moisture Proof Cellophane.

CAPEH-VISCOSE, INC.

Letter was received from V.P. M. Moore, dated May 2, 1928, quoting reply received from Mr. Joseph A. Brubal covering certain minor points raised by the Chairman, who stated that this did not effect in any way the recommendation made to the Board of Directors to acquire the above concern's assets. It was thereupon moved and unanimously carried that V.P. M. Moore's letter be filed.

NEXT MEETING:

As outlined in the first item in the above minutes, the next regular meeting of this Committee will be held on Thursday, May 10, at 10. a.m. instead of Friday, the regular meeting day.

There being no further business, On Motion, the meeting ad-

journed at 11.15 a.m.

GOVT EXHIBIT NO. 775
Civil Action 1216

Secretary.

APPROVED AS TO LEGALITY:

APPROVED:

1.

August 7, 1941.

GOV'T EXHIBIT NO. 416
Civil Action 1216

REASONS FOR DU PONT CONTINUING A LEADING POSITION IN "CELLOPHANE" PRODUCTION.

1. Pioneer in its manufacture in United States.

2. Produces currently about 80% of total U.S. production.

3. 80% of the production is in moistureproof, the patents for which have but a few years to run, leaving the entire art practically an open one. A shortage in supply would induce others to enter field.

4. "Cellophane's" demonstrated utility in modern marketing methods of Self-Service stores. Also its demonstrated economic value in preservation of food and other articles as well as its outstanding function of enabling products wrapped in it to be completely visible.

5. Twelve classifications of outlets, besides the quantities sold to "Fabricators", "Jobbers", "Converters", "Agents" and "Export", the outlets of which must logically follow the pattern of our own direct outlets.

6. In the five-year period 1931-1935, a depression period, the sales went from 25,000,000 pounds to 43,400,000 pounds, an increase of 73.6%. In the period 1936-1940 from 55,000,000 to 81,700,000 pounds, an increase of 48.5%. In ten years from 25,000,000 pounds to 81,700,000 pounds, an increase of 224%. Sales for 1941 will probably exceed 100,000,000 pounds.

7. In looking at the sales to classified outlets shown on table attached one is impressed with the evenness of the business done year by year. Tobacco products dropped percentage-wise from 35.6 in 1931 to 27.2 in 1935. 1930 was the year "Cellophane" was first adopted by a leading cigarette manufacturer. In the immediately ensuing years it was adopted by others and has become a fixture in the tobacco trade. Essentially all cigarettes are wrapped in it. The decline in the percentage of "Cellophane" sold to total sales is not because there was less demand for it in that industry but because expanding demand elsewhere reduced its importance to the total. Foodstuffs, including candy, baked goods and "other foods", account for about 30% of the total during the last five years.

8. "Cellophane" is definitely tied to the Standard of living. It has contributed to it by making more things in Consumers' Goods available to more people through its aid to wider distribution. An industry serving the consumer market, especially the essential ones, or generally so regarded, seems to us to warrant expansion on the basis of proven demand.

BMM:HL

GOV'T EXHIBIT NO. 418
Civil Action 1216

Sheet 1 of 4

APPROPRIATION REQUEST

Date 5/12/28

Project No. DC-204

BUFFALO CELLOPHANE Plant

Request is made for $ 312,000 for account of

PLANT INCREASE	$ 312,000
DEPRECIATION	$
OPERATIONS	$

Title SIXTH CASTING MACHINE AND ADDITION TO CHEMICAL BUILDING

Necessity and purpose of proposed work:

This appropriation request is presented to cover the installation of the 6th casting machine, addition to Chemical Building with equipment, changes and additions to equipment within present building space in viscose ripening room and finishing area.

Justification of this proposal is based on the following:

(1) Future sales requirements: The rate of expansion of Cellophane sales is 60% ahead of 1927. If this continues, 6th machine will be required as soon as it can be erected.

The advent of moisture-proof Cellophane has opened up new fields for sales that are not possible with normal Cellophane. Sales of moisture-proof Cellophane have been increased at the rate of 6000 lbs. per month since January this year.

(2) The Du Pont Cellophane Company is the only manufacturer of Cellophane in this country. In consequence we must be in position to supply any demand that develops.

In addition, if the tariff decision is favorable to us this will mean further increased business, so we must be in position to supply the equivalent imported amount.

- continued -

Preliminary design by Engineering Division
Final design and installation by du Pont Eng. Co.

Estimate Cost	
Material	$195,000
Freight	
Stores	
Labor (Assembling and Installation)	81,000
Labor (dismantling)	
Contingencies	
Supervision and profit	36,000
Total	$ 312,000

To be commenced when authorized

To be completed in 7 months.

Prepared by N. A. CRAIGUE

Approved [signature] Eng. Div.

[signature]

Charge all expenditures to: 5/18/28 St. Cor. Board of P. 5/24/28

Estimated monthly Expenditures			
	May 33,000	Oct.	40,000
	June 40,000	Nov.	25,000
	~~July 60,000~~	~~Dec.~~	25,000
	Aug. 60,000	Jan.	9,000
	Sept 50,000		

Enclosures

Treasurer's Dept.

Sheet No 1 of 5

M 1110

(3) An intensive campaign on quality of Cellophane as manufactured has been started. It is extremely desirable to have surplus capacity to further these results. Experiments to date to improve quality have been very slow for due to demand of production there have been no opportunities available to shut down machines for alterations and experiments.

(4) Three of the present machines are over four years old. In consequence the amount of time required for proper maintenance is greater. If surplus capacity is available, better maintenance will result than is at present possible. It is necessary to operate present machines 24 hours a day, seven days a week, continuously with only short intervals for repairs.

POWER - REFRIGERATION:

The advent of Rayon high viscosity viscose and other changes has shown a shortage of refrigerating capacity in power house. The Cellophane chemical building equipment for the 6th machine will require about 20 tons of refrigeration capacity.

Very shortly there will be submitted a project by Rayon department for additional refrigerating capacity in power house. The majority of expenditure will be chargeable against Rayon Company and justified by them. However, for this 20 tons needed for Cellophane there will be approximately $5000 required for Cellophane.

This proposition will, however, be a separate project issued by Rayon department and this amount is not included in this project for 6th machine.

ACCOUNTING:

The entire amount of $318,000 is shown chargeable against Plant Increase. There will, however, be a cost of about $1200 for dismantling, moving and erecting outside stairway on chemical building; this will be covered by C.E.V. when work is completed and exact cost known.

M1110

Explanation Project No [illegible]C-204

REASONS FOR MAKING THIS EXPENDITURE

1. Present Facilities and to what extent they are inadequate

Rate of growth of Cellophane business indicates strongly that present manufacturing equipment is insufficient.

2. Known loss per annum (if any) under present conditions $_____

3. Description of proposed work.

1. An additional casting machine.

2. Chemical Building:
32 x 40 ft. addition to present Chemical Building with following equipment - 3 mixers, 1 baratte, 3 shredders and 2 steeping presses with pumps, piping, and auxiliaries.

3. Ripening Room:
No addition to building, one new viscose ripening tank and major piping changes.

4. Finishing area:
Alterations to office space (to be vacated); installation of humidifiers and supplying - tables, racks, cutters, trucks and relocating storage areas, relocating equipment and enlarging shipping room.

4. Additional Facilities and output gained by this expenditure

Better maintenance on present machines.

Quality improvements will be made faster by occasionally having this equipment available for experimental work.

5. Estimated savings per annum by making this expenditure, including (2) $ _____

6. REMARKS (should cover reduction in labor, gain in safety, or other reasons not given above)

Detailed estimate of cost attached.

M1110

Saving estimated by

(SD) _____

(SD) _____

5631

ESTIMATE

1. Site work, near Chemical Building		$ 200.
2. Chemical Building addition 2 - 16' Bays wide		33,000
3. Chemical Building equipment		
Ground Floor - 3 mixers and one blender with auxiliaries		15,575
1st Floor - one baratte		3,000
2nd Floor - changes to air conditioning system and hoppers		3,500
3rd Floor - 3 shredders including hoppers, motors & piping		11,440
4th Floor - 2 steeping presses incl. hoppers, piping, etc.		8,270
Electric wiring and lighting		2,500
Sprinklers 2nd floor		200
Total for Chemical Building equipment -		44,485
Addition to pulp storage		1,500
4. Viscose Ripening Room - no building addition required- one new tank and major changes to piping		4,000
5. Coagulating Bath Alterations		3,500
6. Men's change room facilities		1,000
7. Women's change room facilities		2,000
8. Casting machine and auxiliaries		151,000
9. Alterations to existing office space (Engineering, Chemical, Purchasing & Traffic) for Inspection, cutting and wrapping; with humidifiers		5,675
10. Inspection Room equipment - 2 Seybold cutters, 1 lift truck, 11 tables, 1 scale, 14 castor trucks, skids		10,325
11. Addition to Shipping Room		4,000
12. Outside steam lines and supports		6,700
13. Outside electric lines		2,000
14. Temporary construction		2,000
15. Construction equipment		3,000
16. Ducts		2,000
		276,385
Design supervision and profit		36,000
Total		$ 312,385

M1110

HAC:MLB

GOVT EXHIBIT NO. 419
Civil Action 1216

DU PONT CELLOPHANE COMPANY

EXECUTIVE COMMITTEE

Meeting #41 (Regular Meeting), held at the office of the Company, No. 2 Park Avenue, New York City, at 12:00 Noon, on Wednesday, February 13, 1929.

PRESENT: L. A. Yerkes, in the Chair,
Maxwell Moore,
C. W. Phellis.

ABSENT: M. duPont Lee,
B. M. May.

CELLOPHANE DEPARTMENT
JANUARY REPORT - PART 1:

Report was presented from Mr. J. E. Hatt, General Manager, dated February 7, 1929 (#383), covering a preliminary review of the January operations of the Cellophane Department, and after discussion, this report was ordered filed.

APP'N. REQUEST ODC-2½ - PART 2-$1,205,000.-
OLD HICKORY CELLOPHANE PLANT #1:

Letter was received from Mr. J. E. Hatt, General Manager, Cellophane Department, dated February 13, 1929 (#389) transmitting, in accordance with the Committee's request in meeting on January 30, 1929, the above mentioned appropriation request representing the estimated cost (in addition to amounts already authorized as shown below) of constructing new Cellophane Plant at Old Hickory, Tenn., to consist of buildings capable of housing equipment necessary to provide for output of 4 casting machines, but to include equipment necessary to provide for output of 2 casting machines only at this time. After discussion, it was moved and unanimously carried that Mr. Hatt's letter above referred to be filed, and that the following resolution be adopted:-

WHEREAS, as pointed out by the General Manager of Cellophane Department, forecasted sales of Cellophane indicate the need for providing additional manufacturing capacity in the near future, as shown by following forecast figures:-

		Pounds
1929		
	1st 6 months - 1,800,000	
	2nd 6 months - 2,800,000	4,600,000
1930		
	1st 6 months - 2,600,000	
	2nd 6 months - 3,800,000	6,400,000
1931		
	1st 6 months - 3,600,000	
	2nd 6 months - 5,000,000	8,600,000
1932		
	1st 6 months - 4,800,000	
	2nd 6 months - 7,000,000	11,800,000

AND WHEREAS, with installation of Casting Machine No. 8 at Buffalo Plant (scheduled for operation around March 1, 1929), we will have a total annual capacity, with all 8 casting machines running full time (and no provision for spare casting machine) of around 5,100,000 pounds, and,

MHH

WHEREAS, it is felt that from the standpoint of safety and economic considerations any further plant expansion should be made at some location other than at the present plant site at Buffalo, and,

WHEREAS, careful investigation and study has indicated that Old Hickory, Tenn. is the most advantageous location for a proposed new Cellophane Plant, from the standpoint of lower construction cost, lower manufacturing cost, and collateral advantages of being associated with the Old Hickory Plant of DuPont Rayon Company, which it is expected will supply power for new Cellophane Plant, and housing facilities for Cellophane Plant employees,

THEREFORE, BE IT RESOLVED, that recommendation be made to the Board of Directors that a new Cellophane Plant be constructed at Old Hickory, Tenn., and that appropriation Request ODC-2½ for $1,205,000. be granted to cover construction of plant consisting of buildings capable of housing equipment necessary to provide for output of 4 casting machines, but to include equipment necessary to provide for output of 2 casting machines only at this time, it being understood that this amount, plus the addition of a[illegible]ts already authorized will make a total of $1,253,350., viz:

Project No.	Date Authorized	Title	Amount
DC-225	10/11/28	Preliminary investigation plant sites-	5,000.
ODC-1½	1/30/29	Purchase of land at Old Hickory -	8,350.
ODC-2½-Part 1	1/30/29	Design Work New Plant-	10,000.
ODC-2½-Part 2	(recommended above)	Construction New Plant at Old Hickory - Buildings capable of housing equipment necessary for output 4 casting machines, but to include equipment necessary for output 2 casting machines -	1,205,000.
ODC-2½-Part 3	1/2/29	Purchase of certain long time equipment-	25,000.
		TOTAL ---------	$1,253,350.

The Secretary was instructed to inform the Board that the above estimate does not include any expenditure for power and housing facilities, that it is expected that arrangements will be made by DuPont Rayon Company to supply proposed Cellophane Plant at Old Hickory with power, and with housing facilities for its employees, that it is not now known just how much additional collateral investment DuPont Rayon Company may be expected to make for this purpose, preliminary informal estimate having indicated that such investment might be in the neighborhood of $400,000., but that completion of survey by DuPont Rayon Company of its power situation at Old Hickory may indicate an expenditure less than this amount, with a possibility that no substantial additional expenditure may be required at this time, and that to provide additional housing facilities to take care of Cellophane employees, DuPont Rayon Company may ask for approximately $150,000., the intention being, however, to defer for the present asking for the housing appropriation, inasmuch as houses can be built in a relatively short time, and that the necessity for houses will be given suitable consideration when the time is appropriate.

5634

There being no further business to come before the meeting, it was, on motion, adjourned at 12:15 P.M.

F. J. Hess
Secretary.

1.

APPROVED AS TO LEGALITY:

A. M. Spurgo

APPROVED:

Maxwell Moore
C. W. Phillips
Layerhus
[illegible] absent
B. Kellogg (absent)

M 1113

GOV'T EXHIBIT NO. 420
Civil Action 1216

DCX-2-2

DCX-2

DU PONT CELLOPHANE COMPANY

New York City
March 21, 1929.

TO: BOARD OF DIRECTORS,
DU PONT CELLOPHANE COMPANY,

FROM: EXECUTIVE COMMITTEE.

MONTHLY REPORT DCXB-6
RECOMMENDATION FOR ACTION:

APP'N REQUEST ODC-2½ - PART 4 - $400,000.-
OLD HICKORY - CASTING MACHINES NOS. 3 AND 4:

"The following is quoted from communication from the General Manager of Cellophane Department in regard to sales forecasts vs. production capacity:-

The forecast for 1929 now stands as follows:

First 6 months - - - - - - - - -	1,800,000 pounds
Second 6 months - - - - - - - -	2,800,000 "
Total - - - - - - - -	4,600,000 pounds

I regard the second six months as being more nearly a correct forecast than the first six months' period. During the first two months - January and February - we have exceeded the forecast by 82,000 pounds or nearly 14%. If we continue to exceed the forecast at this rate, throughout the year, we will add 640,000 pounds to it, or a total of 5,240,000 pounds.

With six machines operating for the first quarter of the year, or to the end of this month, March, and eight machines in production for the balance of the year, we shall be able to produce at Buffalo, a maximum of 5,000,000 pounds.

With one machine in operation at Old Hickory, on October 1st., and another on November 1st., we would be able to produce an additional 250,000 pounds, which total operations will just meet the figures given above, if we continue to beat the forecast at the rate we have beaten it so far, during the past two months.

In addition to this, the recent decision of the Customs' Court has apparently caused one of our competitors to withdraw discounts to the jobbing trade and special prices to some of their large trade. Some of this trade has already sent orders to us and some of it has approached us regarding the establishment of arrangements for securing their supplies of transparent material from us. If it should develop that, in addition to exceeding the forecast at the present rate we are successful also in availing ourselves of any part of this heretofore competitive business, we may be called upon to supply an additional [illegible]-million pounds to new trade throughout the ensuing ten months [illegible] the end of the year."

- 1 -

In meeting of the Committee on March 20, 1929, it was unanimously decided to recommend your authorization of the above mentioned Part 4 Request for $400,000. to cover installation of Casting Machines Nos. 3 and 4 in the new Cellophane Plant recently authorized to be constructed at Old Hickory, to consist of buildings capable of housing equipment necessary for output of four casting machines, but to include equipment necessary for output of two casting machines. The addition of Part 4 Request for $400,000 covering casting machines Nos. 3 and 4 brings the total amount of this project to $1,640,000.

It is understood that the addition of these two casting machines will not materially increase the amount of around $400,000. already indicated as the maximum additional investment of DuPont Rayon Company needed to provide at its Old Hickory Plant additional power facilities to take care of the power requirements of the first two casting machines already authorized. It is expected that project covering these power facilities will be submitted to the Board of Directors of DuPont Rayon Company prior to meeting on March 29th.

Also, it is understood that with the installation of two additional casting machines at the Cellophane Plant at Old Hickory (making four in all), additional housing facilities in the Old Hickory Village of DuPont Rayon Company will have to be provided, and that it is estimated that an investment by latter Company of around $200,000. will ultimately be required for this purpose, instead of the $150,000. previously indicated as probable requirement in connection with two casting machines.

EXECUTIVE COMMITTEE?

by F. G. Hess,
Secretary.

1.-

GOV'T EXHIBIT NO. 4-21
Civil Action 1216

TWING-ENGINEERING-RES ...ANEY-SCHWARZ-WKS ENGR.O.R. Sheet 1 of 6
(11) - R. HATT - MR. TWING-ENG. RECORD BOOK-PROJ.

APPROPRIATION REQUEST

Date 8/8/29

Project No. OLC-[illegible]

OLD HICKORY CELLOPHANE Plant #1

PART V

PLANT INCREASE	$	1,156,000.00
DEPRECIATION	$	
OPERATIONS	$	

Request is made for $ 1,156,000 for account of

Title FOUR CASTING MACHINE BUILDING AND EQUIPMENT ADDITION AT OLD HICKORY

Necessity and purpose of proposed work:

Statement of preceding authorized Old Hickory Cellophane projects attached.

This project is submitted for authorization to extend the Old Hickory Cellophane Plant making it a full sized unit having eight casting machines. Four casting machines have been authorized to date, and are now being fabricated and installed.

Present Production Facilities

At Buffalo

Eight casting machines
Rated at pounds of Cellophane per year . . . 5,000,000

Being built at Old Hickory

Four casting machines
Rated at pounds of Cellophane per year . . . 2,500,000

Total installed and authorized 7,500,000

Proposed Production Facilities

Four more casting machines
Represent a 33% increase in production facilities, or pounds per year 2,500,000
Thus making a total producing capacity of per year, pounds . . . . . 10,000,000.

Estimate Cost
Material

Refer to attached summary and check estimate by Eng. Div. of E.I. du Pont de Nemours and Co.

Freight
Stores
Labor (Assembling and Installation)
Labor (dismantling)
Contingencies

Total $1,156,000.00

Estimated monthly Expenditures Refer to attached.

Enclosures

To be commenced design started
To be completed refer to attd.
Prepared by ENG. DIVISION.
Approved R.D. Moor
Eng. Div.
J.C. Hatt
6/17/29 - Executive Committee by Fabbers Secy.

Charge all expenditures to:
Plant Increase
Old Hickory Cellophane
Plant 1
6/28/29 - Cellophane Board of Directors

Treasurer's Dept. C.R. Corkle

M1378

WAG:HLD Sheet No. 1 of 6

ODC-24

Sales of Cellophane have been greatly exceeding sales forecasts; for example - May Forecast was 375,000 pounds and actual sales was 480,000 pounds. This is at rate of 5,700,000 pounds per year and does not represent peak monthly sales. According to past experience, the first six months of the year represents 40% of Cellophane sold and the last six months of the year represents 60%. The peak sales occuring in the Fall.

New lines and uses of Cellophane are opening up rapidly.

With this rapidly increasing trend of Cellophane sales, it is highly probable that authorized and installed reduction facilities will be unable to meet the sales demand for Cellophane.

Past practice of installing machines

Up to the present time one, and two casting machines have been authorized and installed. These were authorized on the basis of -

(1) Cellophane sales increase
(2) having a machine for experimental purposes.
(3) having a spare machine so necessary maintenance work and changes could be done on existing machines.

To date sales have increased so fast that there are no idle machines and only minor experimental work is being done at the present time. All existing machines are operating 24 hours a day, 7 days a week.

In addition, from the date of authorization to final completion all work including design and construction is rushed. Several occasions have occurred where this rush work has resulted in faulty installation. A better overall machine will be the result of a slightly more liberal schedule.

Fabrication of machines

All our casting machines have been built in the Shops of the E.I. du Pont de Nemours and Company in Wilmington Delaware. Special jigs, tools, molds have been developed. Outside fabricators do not possess these facilities and it is not desirable that they have them.

In order that improved machines may be economically and accurately built, it is necessary that a definite schedule be adopted and authorized. This will allow the Wilmington Shops to plan their work with respect to casting machine and in addition so that other work for other departments of the du Pont Company can proceed at the same time.

There is a bad situation existing at the present time with respect to fabrication of authorized machines. Number one and two casting machines for Old Hickory are now being built in the Wilmington Shops. Machines number three and four are authorized and from present indications, they will be needed just as soon as they can be built and installed. In consequence, it has been necessary to farm out part of these machines to scattered shops thruout the country. $20,000 is the estimated additional cost of doing this work as these outside shops have been requested to work overtime. This in addition to higher costs due to paying their profits on this work.

M137

In view of the above a definite schedule of machine fabrication has been planned. In a meeting between officials of the Du Pont Cellophane Company and Engineering Department of du Pont Company it was agreed from all angles such a sales production needs, economical installation of machines and Wilmington Shops capacity that the following schedule for future machines should be recommended.

Old Hickory

Casting machine	Completion date
5	Dec. 15, 1929 *
6	Jan. 1, 1930 *
7	Mar. 15, 1930
8	Apr. 1, 1930

* 5 and #6 can be installed by November 15 and December 1, if an additional $20,000 is spent for speeding up work.

New Plant

#9	June 1, 1930
#10	" 15 1930
#11	July 1, 1930
#12	" 15, 1930

In order to adhere to schedules for #9, 10, 11, and 12, construction work of the new plant should start September 1, 1929.

This project is therefore presented for the machines number 5, 6, 7 and 8 at Old Hickory and estimate includes $20,000 for speeding up 5 and #6.

Power

In order to provide power facilities at the Old Hickory Power House for these four machines certain power additions are required. These will cost approximately 250,000. A separate Rayon project will be presented for authorization very shortly.

Village

Additional houses will be require in the Old Hickory Village in order to provide housing facilities for the additional employees. A separate Rayon project will be presented very soon for about 170,000 for this purpose.

M1378

R-12002*

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE

RAYON DEPARTMENT
COMPRISING
ACETATE DIVISION
"CELLOPHANE" DIVISION
NYLON DIVISION
RAYON DIVISION

May 8, 1939.

TO: EXECUTIVE COMMITTEE.

FROM: - L. A. YERKES, GENERAL MANAGER,
RAYON DEPARTMENT.

"CELLOPHANE" FILM EXPANSION:

As J. E. Hatt's letter, attached, states, our anticipated forecast for 1940 sales is 80,000,000 pounds, while our rate of production by the end of 1939 will be 81,000,000 pounds, after adding 5,000,000 pounds by an expenditure of around $375,000. for which project will be submitted shortly. We are, therefore, faced with the necessity of having additional capacity available by the spring of 1941 if our forecasts of future growth are correct.

We have two logical choices for further expansion: first, Buffalo; second, Clinton, Iowa.

The Clinton, Iowa, estimate submitted for 8 casting machines is $7,500,000.; for the second 8 machines, $5,000,000.

By putting 8 machines in Buffalo, using what is logically available of the inoperative rayon plant, we could install 8 machines for between $5,000,000. and $5,500,000. In other words, by putting in 8 additional machines at buffalo we could save from $2,000,000. to $2,500,000. new money on an 8 machine installation.

We would then have 24 casting machines at Buffalo, 16 at Old Hickory, and 16 at Spruance.

If this is the end of our future "Cellophane" expansion, it would seem obviously the best thing to do.

On the other hand, if we assume a further expansion up to 16 or perhaps 24 additional casting machines during the next 5 to 10 year period, our best judgment is that it would be better to start at Clinton.

We do not like the idea of having even 24 machines at Buffalo, and would be thoroughly opposed to having 32 machines at Buffalo as against only 16 at Old Hickory and 16 at Spruance; too much concentration at our highest cost plant.

A 1118

In spite of the fact that "Cellophane" is more vulnerable from a competitive standpoint as the years go on, it seems as if the best guess would be that Clinton expansion would continue to at least 16 machines, and on this basis we would recommend looking forward to presenting you with an estimate toward the end of this year for an 8 machine plant to be located at Clinton to be ready by 1941.

In order to be forehanded about this, we are proposing to submit to you promptly a preliminary design project for Clinton to the extent of $50,000., in order that all the preliminary work may be done in an economical and proper manner and not have to be rushed at the last minute.

If between now and the end of this year conditions are radically changed in any manner, we obviously would not go ahead, and in that event $50,000. would have been, temporarily at least, wasted.

I am attaching a letter from J. E. Hatt as well as a letter from R. D. Moore concerning this subject.

This plan leaves us with an unemployed investment at Buffalo of around $2,500,000. in buildings and facilities. We believe it is a reasonable assumption that this will be gradually used in the next few years by further expansion of new products, particularly rayon staple.

The policy of this program we believe to be of major importance, and if there are any differences of opinion we should welcome the opportunity of discussing it with the Committee.

L. A. Yerkes,
GENERAL MANAGER.

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1.
enclosures

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GOVT EXHIBIT NO. 425
Civil Action 1216

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE

"CELLOPHANE" DIVISION

CLINTON PROJECT

I believe we should reinstate the Clinton project for an additional plant for "Cellophane" manufacture at a new site and there are a great many facts regarding our present volume, the present trend in sales, and the possibility of further manufacture at our present sites that seem to point definitely to this conclusion.

These are to be set forth in detail here in an effort to present this picture as a whole, anticipating as far as it is possible our program for the next three years, and setting forth such necessity as exists for greater service to some of our trade and a more logical source of supply for certain types of trade for quick deliveries and featuring also the question of protecting our present volume as well as the prospective growth in certain industries where prompt service will be essential, and in fact be required by the conditions surrounding relations with some of our trade.

There will also be pointed out the competitive position and the anticipated effect on us if competitive manufacture were begun in the Middle West.

Present Tonnage and Forecast:

At the moment our sales are running at a rate for the calender year 1939 something in excess of 72 million pounds. Our #2 forecast from April 1st forward for 12 months will be at about this figure. Should general business conditions improve, employment increase, and the general level of industrial activity attain a better level, there is a substantial chance that this volume will be increased and that succeeding forecasts throughout the year will reflect increasing figures.

At the moment on a 12 months basis at known speeds for the production of satisfactory qualities, we have a capacity on an annual basis of 76 million pounds, with the peak capacity in any one month of perhaps 7,800,000 to 8,000,000 pounds. This

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* "Cellophane" is a trade mark and should be spelled with a capital "C"

kind of a productive capacity could not be maintained for several months in a row because of the necessities of maintenance and overhaul work to our equipment to maintain satisfactory quality and yields and which work is scheduled regularly throughout the year to be done so as to give us the benefit of all of our equipment in production at the peak months which always have been approximately three months in the early fall, culminating in a peak in October. The month of October regularly runs from 10 to 10-1/2% of the annual production in that year except where a variation of general economic and business conditions changes that by the level of general business. We have months as low as 7% of the total calendar year's business and this seasonal variation gives us an opportunity to do our maintenance and overhaul work in the months when peak production is not required.

Our experience in trying to manufacture ahead for more than a 60 to 90 day period has never been successful. Even under surroundings which are protected with air conditioning and humidity control, our material changes sufficiently to render its operations in rolls on automatic machines unsatisfactory. We are therefore obliged to manufacture regularly within a period of 30 days of actual sale. Actually we only carry about a two weeks' supply at any time of finished and semi-finished goods. This spread of seasonal variation in different months from 7% to as much as 10-1/2% represents a variation of 50% in the volume produced in these lower demand months.

Our present viscose capacity will permit us to produce about 76 million pounds of material annually regardless of the speeds the machines are operated at or the type of material manufactured. We have under construction at this time added viscose capacity to supply sufficient of this essential material for the operation of the group of machines at that point at the highest proven speeds of casting with a satisfactory quality yield and this addition will increase our total annual production about 3 million pounds per year. This brings us to an actual available capacity of 78 to 79 million pounds annually, and we have the possibility of installing some more additional viscose capacity at Buffalo to provide for maximum operating speeds of the equipment at that point that will provide another 2 to 2-1/2 million pounds annually, and this will bring our total overall production to approximately an 80 million pound basis.

On the question of speeds, we have three or four machines on experimental production now that have been modified in advance ways to determine what the top speed of casting might be with our present equipment together with such changes as seem to be indicated to get the greatest pounds per machine per month

GMC EXHIBIT NO. 1425

production of a satisfactory quality, and our determination at the moment is that even with certain of these modified machines representing an improvement over present practice, that the top figure for the manufacture of satisfactory quality film is approximately 65 meters per minute. We have tried 70 meters on this newer modified equipment and have been obliged to fall back because the quality and percentage of the yield were not practical. Not all of our production even can be run at these speeds nor on all machines, for the reason that some of the older type will not lend themselves to mechanical operation at these rates, and also the fact that we manufacture heavy gauge film and also colored films and also anchored films, requires that their basis of operation be kept at levels required to produce desirable characteristics in these particular products. We can make no blanket statement as to the rate of speed that will be true of all machines for all goods but the maximum in our judgment that we can demonstrate thus far under proven conditions, particularly for film to be coated as moistureproof, which is the largest item we produce, is the 65 meters mentioned; and actually as a matter of day to day operation we would prefer to run at slightly under this except under emergency needs, in order to insure that our quality was not reaching the borderline grade.

In plain transparent material we have, by the introduction of two tank process of sizing, stepped this up to 80 meters and we may be able to go a little higher than this but thus far we have not been able to do so with a quality of non-sticking film that will meet the requirements of trade buying this type of material.

Our position, therefore, on speed and viscose capacity is that with the completion of this additional capacity at Old Hickory now about ready and with a small amount of additional viscose capacity to be added at Buffalo, that we will be in balance so far as speed and viscose capacity together will regulate our production from present equipment. For the purpose of capacity discussion, therefore, and allowing us the time for the installation of additional viscose at Buffalo, we may say that our 1940 maximum capacity of production of satisfactory quality at the moment is a total of 80 million pounds.

If we succeed in selling 72 million pounds or thereabout during 1939 we will, because of our continuing growth in a number of directions, forecast 80 million pounds for 1940 without question, and in this way providing for an anticipated 10% increase in sales during that year. If we are wrong in our forecast to the extent of 5% or more we should be put to it to produce such an increased quantity. We have during some of the depression

years when business has been improving for certain stretches of time, shown gains of as much as 25 to 30% in various months and in some cases for extended periods of six or seven months over the previous year. General business is today at least 20%, we estimate, below present day normal in many lines and as this volume increases generally it will undoubtedly be reflected to a considerable extent in the consumption of consumers' goods at least to a considerable percentage of that amount, and it is in consumers' goods that our market lies.

This points to the conclusion that if the volume of business generally in 1939 and 1940 should continue to increase to a more nearly normal level, in anticipation of better general business, economic and political conditions in the United States we may find ourselves without the capacity to produce possible business available with our present equipment.

It has always taken more than a year to begin a new plant and to get it into operation, say half of its equipment, and in most cases this period has extended for a period of 15 to 20 months, and so if we are to have any additional capacity or protection of additional new capacity coming in in late 1940 we shall have to begin construction sufficiently early in 1939 to get the plant enclosed before severe winter weather conditions shut down and to enable us to proceed with continued construction and installation during the early months of 1940 to have additional capacity available by August of that year.

Present Plant Locations and Facilities:

Our present plants at Buffalo, Richmond and Old Hickory geographically represent the three corners of a rectangle, and to complete the rectangle with a plant at the fourth corner would place it within a 100 miles of Chicago and give us the advantage of a midwestern location from a service and freight rate viewpoint. It would also locate a plant closely enough to a large part of the industrial and agricultural producing sections with a big population in the Middle West that would enable us to deliver material as advantageously in that section as we now can in the East and Southeast. Incidentally it would give us a distinct advantage in a competitive way in service to large units of competitive trade in the big centers of a populous Middle West. The States of Illinois, Missouri, Wisconsin, Minnesota, Michigan and Indiana, represent heavy tonnages in the sale of our material, and there would be tributary to that site at this time, based on logical freight rate distribution, sufficient tonnage to more than operate the capacity of an eight machine plant and looking forward ultimately to expansion of that unit to 16 machines as we now have at the other three sites.

M-470 C

We are growing very extensively in the baking industry and in the general food field and these are items of quick preparation and rapid turnover and in many cases requiring a constant source of supply of short delivery times because many of these concerns are not of a credit type to whom large shipments can be made, nor who are equipped or accustomed to buying ahead in large quantities.

In the bakery field alone the business is a cash business. The fixed assets required to engage in it are relatively small in proportion to the amount of turnover and the margins are short but the articles are articles of every day necessity of practically every household and the qualities of sanitation and protection and the reduction of waste which our material produces are both essential and desirable in the marketing of their products. In many cases the assets of a substantial baking group are not sufficiently heavy to permit of anything other than shipments of modest size at frequent intervals with payment being made as the goods are received. The proportion of our material that can be used in relation to dollar sales at retail is perhaps greater in this industry than in most others, and we do a very necessary and satisfactory job of presenting their material to the public in an acceptable way and in reducing their waste thru stale returns and improving the sanitation in the conditions under which these products are handled.

Notwithstanding this successful record thus far in the baking industry our best judgment is that there are still 80 million pounds of bread wrappers sold in America this past year to the baking trade which was a type of product that we do not yet supply. We are getting closer to bread almost day by day. We wrap a great many bread specialties and competing bread products such as rolls, buns, sweet dough goods, and even in some cases we do actually wrap high grade white loaves, but there is a tremendous potential beyond this that we have not yet attained, but which provides a potential market at least as great as our own at this time. This is but one industry and there are others in which we have substantial prospects as well, and on this additional prospective group of markets we base our conclusion that we are still in the growing stage and that we will continue to increase by reasonable percentages for a number of years ahead. Hence, if this is true we shall ultimately require substantial additional capacity over our present facilities, and because of the prospect that we may require more than we now have at an early date, this recommendation for immediate consideration of construction of additional facilities is made.

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The Competitive Situation:

At the moment we have but one competitor making identical material and who has attained a size where he now has a 16 machine plant in one location in Virginia. Our experience has been that this is about the maximum size operation of the manufacture of this material that is economical or desirable from a distribution point of view. If he were to erect a plant in the Middle West close to the markets discussed herein prior to our doing so, we should probably be at a substantial disadvantage in that market from a point of view of service to the general run of trade, and we think it important to protect our present volume there and to increase it further by providing a standard of service and the time of delivery, which from his present operating base in Virginia will be difficult to meet. Hence from a point of view of protection of our present volume and from the point of desirable location we should give consideration to manufacture in that section at this time.

There are miscellaneous types of films of several kinds being discussed and talked about, some of which are being offered in a small way at present by other concerns who see a possible opportunity to divide a part of this wrapping tissue field with us. Some of these films have rather unique or interesting or perhaps desirable qualities but none of them as yet has replaced any important volume of our established business with their type of material.

For the past few years we have worked with our Technical and Chemical groups discussing the possibility of production of other types of material and as a result of this we are now putting in a small unit for the manufacture of cellulose acetate film at Richmond. This will give us a type of equipment also which will make it possible to make certain specialized types of films cast from solutions such as the vinyl acetal resins, ethyl cellulose, cellulose acetates of different types, and perhaps rubber hydrochloride. In our judgment these films will occupy a certain field largely of specialized purposes, and I believe we are fully conscious of their potential and hope that within the next year or two to be able to produce such specialties where required.

Our central Chemical Department tell us in our discussions with them repeatedly on lower priced films or films of a different type at similar prices, that might be developed competitively, that they can recommend at this time nothing that offers more profitable possibilities than cellulose materials. They point to the fact that we start with a low priced, easy available type of product in cellulose and that most anything else against that can be offered only at a price disadvantage

M-470 E

which would probably not lend itself to widespread adoption for every day use on many low priced articles of general consumption. They have considered starch at quite some length and find it of very meager possibilities so far as tough films are concerned. It has practically no tensile strength and has not been commercially made as yet. Continued study and development will be necessary along a number of these lines of different types of film for special purposes, but if obliged to do so we can make our price position on cellulose film still more attractive and still calculate a satisfactory profit largely because of our present position in volume and the quality of the film we now produce.

All of this seems to point to the conclusion that we have not yet attained our maximum possibilities in the manufacture of cellulose film; that the volume possibilities of sale are still ample; that the needs of the trade require facilities in a big market far removed from our present production; and that the protection of the industry justifies a location close to those markets and that the possibility of competitive inroads into our material does not threaten at the moment the stability of this industry and that our installation of solution casting equipment at another site to protect against prospective and possible other types of material seems ample for the moment in that direction and that if necessary the price may be further reduced on our material by production and sale of added quantities and when to this you add the possibility that general business conditions will be improved in America over the recent depression levels, that we are almost sure to require the added facilities indicated herein.

Regarding the particular site itself, it is sufficiently far removed from the Chicago district that we shall have an attractive manufacturing location with a very satisfactory basis of labor rates and a type of desirable labor and from the economics of manufacture that the cost created when the Clinton plant is developed to its comparable size with the other southern plants that the cost will at least equal present performance and be substantially better than our present Buffalo operation in this respect. In addition it will be logically located to a large block of trade that now is served only at a penalty of excessive freights.

In view of all these facts and conclusions, we recommend that the Clinton plant, formerly approved, be reinstated as a current project and that construction be begun as promptly as possible to insure a normal schedule of erection and installation that will minimize costs of such construction and that will make added capacity available there by the late summer or early fall of 1940, if required.

M-470 F

J.E. HATT

JEH:LMP

GOV'T EXHIBIT NO. 430
Civil Action 1216

1927 Annual Report

COMPETITIVE REPORT.

MAY, 1928.

Sales Record Dept.

SUBJECT: - COMPETITIVE REPORT

In an endeavor to show the activity of our competitors, we have listed all accounts whom we have signaled as using competitive material. By competitors we mean those concerns who are selling imported transparent cellulose sheeting:- namely, Birn & Wachenheim, Henle, and Bendix.

On each account we have given the following information:

A - Name and location

B - Class - represents potential volume

C - Industry

D - Competitor

E - Estimated 1927-1928 purchases from competitor

F - Du Pont sales 1927-1928 to date

G - Reasons for buying from competitor

Before analyzing this report, we should point out its weaknesses. It is by no means complete. It includes only those concerns whom our salesmen have called upon and reported as using competitive material. We believe, however, that we have included all the important concerns.

The estimated sales by competitors is only an estimate. It is based on the account's direct purchases, if any, and its potential volume. In some cases we have omitted this estimate entirely - where an account is purchasing from both agent and competitor, and we do not know how their requirements are distributed.

We have analyzed this report to show:

A - Where the competitor has gained the strongest foothold - by territories

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B - From what accounts the competitors get their greatest volume.

C - The industries in which the competitor has gained most ground - trade analysis.

D - The strength of each competitor - individual competitor analysis.

E - Reasons for buying from competitor.

SUMMARY OF COMPETITIVE SALES BY TERRITORIES

Territory	No. of a/cs buying from competitors	Estimated 1927 Purchases	B&W	Henle	Bendix
Uptown - N.Y.C.	11	$110,000	11	--	--
Brooklyn	17	102,000	15	2	--
Downtown - N.Y.C.	11	44,000	11	2	1
Southern	5	37,000	1	3	3
New England	7	23,000	4	3	
Philadelphia	11	17,000	10	1	--
New Jersey	5	10,000	5	--	--
Chicago	12	9,000	10	2	--
Cleveland	7	6,000	5	2	--
Minneapolis	10	5,000	8	2	--
West Coast	2	--	--	2	--
Cincinnati	1	--	1	--	--
Totals	99	@$364,000	81	19	4

@Does not include accounts without estimate.

The chart indicates, as we already know, that B&W is getting practically all the business from those accounts who are using competitive material.

Brooklyn territory has the greatest number of accounts buying from competitors as well as the largest volume of

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business done by competitors.

Uptown New York territory appears on the chart with the greatest amount of business going to competitors, but this figure includes the combined purchases of Ward and Great A & P Tea Company.

SUMMARY

	BY INDUSTRIES			BY COMPETITOR
	B&W	Henle	Bendix	
Candy	46	11	2	$210,000
Baker	8	1	2	132,000
Meat	7	1	--	12,000
Perfumes	8	1	--	6,000
Food Products	6	1	--	--
Miscellaneous	6	4	--	4,000
	81	19	4	$364,000

The candy industry is the field in which the competitors have made most progress. When we understand their methods of doing business, we can readily see why most of their business comes from an industry, which was one of the first to adopt Cellophane, and which has been developed intensively by us. Most of this business, however, comes from a few accounts. They are:

Park & Tilford
F. H. Roberts Co.
E. Greenfield's Sons
Loft
Hollingsworth Candy Co.

The Baking industry is second. Practically all the competitors' sales in the baking industry came from two accounts -

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Ward Baking Co. and Silvertown Baking Co. in Brooklyn.

The facts, real and alleged, which give the competitors their foothold are listed in the order of their importance as reported by our salesmen:

Price -

A - Case price applies to case orders even though shipped in small lots

B - Free delivery in the N.Y.C. district

C - Competitors maintain they forced us to reduce our price - a contention that has influenced some concerns.

Delivery -

A - Our competitors have a decided advantage in this respect because their stock is in warehouse ready to ship at a moment's notice, whereas our production schedules does not permit shipping upon receipt of orders.

Credit Policy -

Our competitors are more lenient in their collections. This also enables them to make quicker delivery, i.e., they avoid delay of credit investigations.

Quality -

Competitive material has been preferred to Cellophane by some concerns on the grounds that the #300 was heavier than Cellophane, and in a few cases, more uniform.

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COMPETITIVE REPORT

Name	Town	State	Class	Trade	Competi
Uptown-N.Y.Ter.					
1. F.R.Arnold Co.	N.Y.C.	N.Y.	3	Cosmetics	B.&
2. D.Auerbach & Son	"	"	2	Candy	"
3. Great A.& P.Tea Co.(all locat.)	"	"	1	Chain Grocer	"
4. Harret Hubbard Ayer	"	"	3	Cosmetics	"
5. Milton Cahn Inc.	"	"	3	"	"
6. Coty, Inc.	"	"	1	"	"
7. Cristede Bros.	"	"	3	Chain Groc.	"
8. Park & Tilford	"	"	1	Candy	"
9. George Kern, Inc.	"	"	1	Meat Pkr.	
10. Webbing & Edging Co.	"	"	2	Bias Tape	"
11. Ward Baking Co.(all locat.)	"	"	1	Baker	"
Downtown-N.Y.Ter.					
12. Darrow & Rudden	"	"	3	Candy	B.& Bond
13. R.M.Haan	"	"	1	"	B.& Henl
14. Happiness Candy	"	"	1	"	B.&
15. Henry Heide Co. Inc.	"	"	3	"	"
16. Heller Bros.	"	"	3	Fish	"
17. S.H.Kress Co.	"	"	3	Chain Stores	B.& Henl
18. Frank P.Kruger Co.	"	"	3	Candy	B.&
19. Meamon Candy Mfg. Co.	"	"	3	"	"
20. Seeman Bros.	"	"	3	Food Prod.	"
21. Selick & Co.	"	"	3	Perfumes	"
22. Surbrugg Nut Products Ltd.	"	"	3	Candy	"
Brooklyn Ter.					
23. Austin Nichols Co.	Bklyn.	"	3	Chain Groc.	"
24. Dom Wallette Co.	"	"	3	Candy	"
25. Jos.G.Dubin & Sons	"	"	3	"	"
26. Elbee Chocolate Co.	"	"	3	"	"
27. Euclid Candy Co.	"	"	3	"	"
28. Geo.H.Fritz & Co.	"	"	1	"	"
29. Adolph Gobel	"	"	3	Meat	"
30. E.Greenfield's Sons	"	"	1	Candy	"
31. Independent-Halvah Co.	"	"	3	"	"
32. Mason, Au & Magenheim	"	"	3	"	"
33. J.J.Matchett & Son	"	"	3	"	"
34. Metro Chocolate Co.	"	"	2	"	"

Sales

May 17, 1928.

tor	1927 Comp.	1927 DuPont	1928 Comp.	1928 DuPont	Reason for buying thru Competitor
	-	$692.	$250.	$290.	Price; our credit policy.
	$2000.	2991.	1500.	-	Price; Delivery.
	5000.	25131.	8000.	1200.	Price
	500.	-	100.	-	Price
	-	-	100.	150.	DuPont now sole source of supply.
	-	10,000.	500.	2,500.	Price;delivery-Buy from Catty & Bulr
	-	964.	300.	-	Save freight from Buffalo.
	80,000.	1,137.	30,000.	-	Price; Harte took order 5/4/28.
	-	Gurwick	3,000.	64.	Price
	3,000.	1,003.	1,200.	-	Save freight charges.
	80,000.	6,188.	-	855.	Price.
	4,000.	455.	1,200.	-	Price
	2,500.	-	800.	-	Claims quality is better.Price-F.O.B. N.Y.
	30,000.	-	10,000.	-	Price; Delivery.
	3,000.	-	1,000.	-	Price
	-	-	300.	-	Now buying from DuPont.
	80.	953.	320.	-	Credit difficulties.
	3,000.	-	1,000.	-	Price
	1,500.	417.	800.	-	Longer credit period.
	-	Catty	250.	-	
	?	-	?	563.	Price;We are now getting their bus.
	-	1,317.	?	-	Price
	-	313.	500.	-	To high breakage on our envelopes.
	-	271.	500.	936.	Credit difficulties.
	500.	-	50.	-	
	5,000.	-	1,600.	-	Price
	?	-	?	-	Price.
	?	1,347.	?	-	Credit difficulties.
	1,000.	1,050.	500.	64.	Price
	30,000.	416.	10,000.	-	Price; delivery.
	1,500.	-	400.	-	Price
	-	56.	?	-	Delivery - Price.
	1,000.	-	400.	-	Price - delivery.
	5,000.	-	1,700.	-	Price

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COMPETITIVE REPORT

Name	Town	State	Class	Trade	Competitor	Sales 1937 Comp.	1937 DuPont	Sales 192[illegible] Comp.	192[illegible] DuPont	Reason for buying thru Competitor
Brooklyn Continued										
35. Silvertown Baking Corp.	Bklyn.	N.Y.	1	Baker	Henle	45,000.	4,841.	15,000.	-	Price
36. Virginia Peanut Products	"	"	3	Candy	B.& W.	-	1,245.	1,500.	-	Price
37. American Druggists Syndicate	L.I.C.	"	3	Drugs	"	500.	1,519.	800.	-	Price
38. Loft, Inc.	"	"	1	Candy	"	10,000.	-	5,000.	-	Price
39. Henry Maillard Inc.	"	"	3	"	Henle	3,000.	-	1,250.	-	Price;delivery heavier stock.
New Jersey Ter.										
40. Oswego Candy Works, Inc.	Oswego	"	3	"	B.& W.	2,500.	-	800.	-	
41. Colgate & Co.	Jersey City	N.J.	1	Perfumes	"	-	8,479.	?	3,902.	Price
42. Belle Meade Sweets	Trenton	"	2	Candy	"	7,000.	-	2,500.	-	Credit
43. Schwarz & Son, Inc.	Newark	"	3	"	"	1,000.	105.	200.	-	Price - delivery.
44. Horton Sweets Co. Inc.	Ridgefield Pk.	"	3	"	"	-	1,100.	600.	-	Delivery
Philadelphia Ter.										
45. Quaker City Cho.& Conf.Co.	Phila.	Pa.	1	"	"	2,000.	Euler	4,000.	-	Price-Now using our S.P.
46. Croft & Allen Corp.	"	"	2	"	"	2,000.	Catty	500.	Catty	Now buying from Catty.
47. Chas.F.Adams Co.	Lancaster	"	3	"	"	500.	-	200.	-	Price
48. R.F.Keppel & Bro.Inc.	"	"	3	"	"	500.	-	-	45.	Now buying from DuPont.
49. Chocolate Products Co.	Balti.	Md.	1	"	"	10,000.	-	4,000.	-	Price
50. H. & H. Cookie Co.	"	"	2	Baker	"	-	840.	2,000.	-	Price - delivery.
51. Henry Heil	"	"	3	Meat	Henle	-	-	200.	-	
52. Berkshire Knitting Mills	Reading	Pa.	1	Hosiery	B.& W.	-	1577-also A.P.G.Co.	?	A.P.G.Co.	Price
53. N.Auth Provision Co.Inc.	Wash.	D.C.	1	Meat	"	-	4,476.	500.	108.	
54. Pennsylvania Baking Co.	Scranton	Pa.	2	Baker	"	-	Catty	300.	-	Price
55. J.B.Carr Biscuit Co.	Wilkes Barre	"	1	"	"	2,000.	-	3,000.	-	Price
New England Ter.										
56. Cox Confectionery Co.	Boston	Mass.	1	Candy	"	?	Ellis	?	Ellis	Claims Competitive Material(stronger) is
57. Edgar P.Lewis	"	"	1	"	"	-	"	?	"	Claims Penestra is heavier.
58. Lovell & Covel	"	"	1	"	Henle	?	558 Ellis	?	"	Claims quality is better.
59. F.H.Roberts Co.	"	"	1	"	"	23,000.	457 Euler	12,000.	1,689.	" " " "
60. Upham Corner Mkt.	"	"	3	Food Prod.	"	?	-	?	-	
61. J.W.W.Holden	Providence	R.I.	2	Novelty Jewelry Candy &	B.& W.	500.	2,390.	1,500.	-	Feels as tho we overcharged him on diamond shaped sheets.
62. F.B.Washburn & Co.Corp.	Brockton	Mass.	3	Baked Foods	"	-	50.	?	-	
Cleveland Ter.										
63. Cecil Candy Co.	Detroit	Mich.	3	Candy	"	?	-	500.	45.	Claims quality is better.
64. Detroit Candy Co.	"	"	3	"	B.& W. Henle	?	-	?	-	Credit
65. Hammond Standish Co.	"	"	2	Meat	B.& W.	3,000.	1,580.	2,000.	-	Price
66. John O.Gilbert Chocolate Co.	Jackson	"	2	Candy	"	2,000.	4,100.	2,500.	-	Price

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COMPETITIVE REPORT

Sales

Name	Town	State	Class	Trade	Competitor	1927 Comp.	1927 DuPont	1928 Comp.	1928 DuPont	Reason for buying thru Competitor
Cleveland Ter.Continued										
67. Lambert Chocolate Co.	Jackson	Mich.	3	Candy	B.& W.	1,500.	-	500.	-	Credit-delivery.
68. Fanny Farmer Candy Co.	Buffalo	N.Y.	3	"	Henle	?	-	?	-	
69. Kelly Co.	Cleveland	Ohio	3	Nuts	"	?	97.	?	-	
Chicago Ter.										
70. Blue Ribbon Bakery	Chicago	Ill.	2	Baker	B.& W.	500.	Catty Mill.Rtg.Co	3,000.	-	Price
71. Chicago Cookie Co.	"	"	3	"	"	?	Catty	800.	-	Price
72. Chicago Cream Fried Cake Co.	"	"	2	"	"	-	-	?	1,189.	Buying M.P.from us & reg. P.T. from B. & W.
73. Cosmopolitan Candy Co.	"	"	3	Candy	"	500.	Catty 525	1,800.	-	Price
74. Farley Candy Co.	"	"	1	"	Henle	Catty 2,000.	2,560.	5,000.	-	Less breakage.
75. Gordon & Gordon	"	"	2	Cosmetics	B.& W.	-	1,073.	2,000.	-	Price
76. I.G.Grass Noodle Co.	"	"	3	Noodles	"	-	-	1,000.	-	Price
77. Illinois Macaroni Co.	"	"	3	Macaroni	"	-	-	200.	89.	
78. Oscar Mayer & Co.	"	"	1	Meat	"	3,000.	3,700.	3,000.	-	Price
79. Pellar Bros. Pie Co.	"	"	3	Baker	"	-	-	200.	609.	Price
80. H.Schoneberger & Sons	"	"	1	Noodles	"	-	182.	?	1147 A.P.G.Co.	Using some B.& W. envelopes.
81. Walgreen & Co.	"	"	2	Chain Drugs	Henle	4,000.	87.	-	4,000	Price
Minneapolis Ter.										
82. T.M.Sinclair & Co. Inc.	Cedar Rapids	Iowa	1	Meat	B.& W.	?	1,773.	1,000.	-	Price
83. Wagner Nut Co.	" "	"	3	Nuts	"	?	555 A.P.G.Co.	?	A.P.G.Co	Were buying B.& W. bags.
84. Nicollet Candy Co.	Minn.	Minn.	3	Candy	"	?	-	500.	Ml.Rtg.Co	Price
85. Henry C.Garrott, Inc.	St.Paul	"	3	"	"	?	Catty	?	-	Price
86. Schuler Chocolate Factory	Winona	"	2	"	Henle	?	Agents(?)	?	-	
87. A.Ramer & Co.	St.Paul	"	1	"	B.& W.	5,000.	Catty	5,000.	-	
88. Winona Candy Co.	"	"	3	"	Henle	?	Brooks	?	45.	Price
89. Kansas City Macaroni & Importing Co.	Kansas City	Mo.	3	Noodles	B.& W.	-	-	?	A.P.G.Co.	Had too much breakage on A.P.G. envelopes.
90. R.J.Buntzell Pecan Co.	" "	"	3	Nuts	"	-	994 A.P.G.Co.	?	-	Fried of B.& W. salesman.
91. Chase Candy Co.	St.Joseph	"	1	Candy	"	-	Brooks	?	Brooks	Price
Southern Ter.										
92. Bensons Bakery	Athens	Ga.	3	Candy Bakers	Bendix Henle	2,000.	-	?	1,000.	Price
93. Sophie May Candy Co.	Atlanta	"	2	Candy	B.& W.	?	-	?	-	Price
94. Hollingsworth Candy Co.	Augusta	"	1	"	Henle Bendix	15,000.	-	7,500.	422.	Price
95. Tom Huston Peanut Co.	Columbus	"	1	"	Henle	-	14,196.	1,500.	6,429.	Price - credit
96. Puerst & Kramer	New Orleans	La.	1	"	B.& W.	20,000.	-	8,000.	-	Price
Cincinnati Ter.										
97. The Newton Products Co.	Cinn.	Ohio	2	Nuts & Candy	B.& W.	-	-	?	308	Delivery

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COMPETITIVE REPORT — Sales — Page 4.

Name	Town	State	Class	Trade	Competitor	Comp. 1927	DuPont 1927	Comp. 1928	DuPont 1928	Reason for buying thru Competitor.
West Coast Ter.										
98. O.A.Harlan & Co.	San Jose	Cal.	2	Dr.Fruit	Henke	?	Zellerbach	?	Zellerbach	Zellerbach now getting business.
99. L.D.Holcan Co.	San Fran.	"	3	Food Prod.	"	?	Zellerbach	?	"	Price - Heavier stock.

* This figure also includes purchase of Happiness Candy, N.Y.C.; Chocolate Products Co., Baltimore; Puaret and Kramer, New Orleans; American Druggist Syndicate, Long Island City. These concerns are also listed individually.

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GOV'T EXHIBIT NO. 431
Civil Action 1216

April 26, 1929

DU PONT CELLOPHANE CO.

QUARTERLY COMPETITIVE REPORT

FIRST QUARTER - 1929

This report is the first issue of the regular Quarterly Competitive Report. The period covered is the First Quarter of 1929.

The purpose of this report is to show the relative position of the Du Pont Cellophane Co. in the transparent Cellulose sheeting industry as compared to that of our competitors.

The scope of the report includes:

1. Bulk figures showing increases and decreases in sales by Du Pont's and competitors during the first quarter of 1929 vs. first quarter of 1928. (See page 1).

2. Competitive Imports - showing imports by quarters for 1927-1929 inclusive. (See Page 3).

3. Estimates and actual sales and percentage of Du Pont's and competitor's by years, 1927-1929 inclusive. (See page 4).

4. Bulk figures- showing number of accounts and value lost or gained by ourselves or competitors during the first quarter of 1929 with reasons. (See page 6).

5. Competitors' policies - including price, credit, deliveries, etc. (See page 14).

6. Competing companies - showing the size, products, and officers. (See page16).

ESTIMATED AND ACTUAL

INCREASE OR DECREASE IN SALES

BY DU PONT AND COMPETITORS

1st QUARTER 1929 vs. 1st QUARTER 1928
(Thousand Pounds Only)

TABLE 1

	Increase	Decrease	Net Increase or Decrease
IRN & WACHENHEIM	-	75	75-
ENLE	-	29	29-
ISCELLANEOUS	7	-	7+
U PONT	382	-	382+
TOTAL	389	104	285+

Comparing the estimated and actual sales for the first quarter of 1928 and 1929 we find that the estimated total transparent cellulose sheeting consumption shows a net increase of 285,000 pounds.

Du Pont sales show an increase of 382,000 pounds over the similar quarter of 1928 while competitor sales show a decrease of 97,000 pounds.

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COMPETITIVE IMPORTS

1927-1928-1929

The Du Pont Cellophane Co. is the sole manufacturer of transparent cellulose sheeting in the United States. The material sold by our competitors is all imported from abroad. The record of imports for 1927, 1928 and 1929 inclusive are based on figures supplied by the Synthetic Organic Trade Ass'n. We have shown figures giving importations by each competitor by quarters for 1927-1928-1929.

The percentage of increase or decrease is shown by quarters for each year as compared to the similar quarter in the previous year. (See Table II - page 3.)

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TABLE II

COMPETITIVE IMPORTS

	1927				1928					1929				
	B. & W.	Henle	Misc.	Total	B. & W.	Henle	Misc.	Total	%Increase or Decrease	B. & W.	Henle	Misc.	Total	%Increase or Decrease
1st Quar.	90	33	-	123	198	66	3	267	113 +	172	76	4	252	5.6 -
2nd "	100	34	5	139	162	32	1	195	41 +					
3rd "	115	51	5	171	74	93	2	169	-					
4th "	69	33	1	103	228	112	4	345	235 +					
Total Imports	374	151	11	536	662	303	10	975	80					

THOUSAND POUNDS ONLY

SECTION A. TABLE III

SUMMARY OF ALL TRANSPARENT CELLULOSE SHEETING SALES IN THE UNITED STATES AND EXPORTS

COMPETITORS	1st Quarter 1929* lbs.	%	1st Quarter 1928** lbs.	%	Last Quarter 1928** lbs.	%	Total 1928** lbs.	%	Total 1927** lbs.	%
BIRN & WACHENHEIM	123	10.	198	22.	228	18.	662	16.	376	15.
HENLE	37	3.	66	7.	112	9.	302	8.	150	6.
MISCELLANEOUS	10	1.	3	.3	4	.3	11	.3	11	.4
TOTAL COMPETITORS	170	14.	267	30.	344	27.3	975	24.3	537	21.4
DU PONT	1000	86.	618	70.	925	73.	3082	76.	2000	79.
EST. TOTAL CONSUMPTION IN U.S. & EXPORTS	1170	100	885	100	1269	100	4057	100	537	10

POUND FIGURES ARE IN THOUSANDS

* Competitive sales taken from salesmen's estimates.

** Competitive sales taken from record of Imports by Synthetic Organic Trade Ass'n.

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ANALYSIS OF TRANSPARENT SHEETING SALES IN THE UNITED STATES

Import figures are used in preference to salesmen's estimates due to the fact that at that time we did not have a sufficiently broad coverage to give us a complete picture of competitors' activities.

Since then, however, our representation in the field has increased. We have redesigned our trade report to get the competitive information desired and with this on hand we have estimated competitors' sales during the first quarter of 1929 on the basis of salesmen's estimates rather than on imports.

Up to September 1928 we believe that the figures showing imports by the competitors are truly representative of the competitors activities. Imported material was for immediate consumption.

From September 1928 to February 1929 the same conditions do not hold true. The decision of the United States Customs Court which, revised the tariff classification of transparent Cellulose sheeting from a "Gelatin Compound" to a "Cellulose Compound," automatically increasing the duty from 25% to 60% ad valorem. This was effective February 24, 1929.

It is believed that during the period from September 1928 to February 1929 inclusive the imports were particularly heavy due to the desire of the competitors to stock the material while the old duty was still in force. This no doubt accounts for the difference between the salesmen's estimated competitor sales for the first quarter of 1929 (170,000 pounds) and the record of imports for the same period (252,000 pounds).

During 1927, it is estimated that 2,537,000 pounds of transparent Cellulose sheeting were sold in the United States and exports. Of the total it is estimated that the competitors sold 537,000 or 21.4%.

Du Pont sales during the same period were 2,000,000 pounds or 79% of the total.

In 1928 it is estimated that the total transparent Cellulose sheeting sales increased 1,520,000 pounds or about 60% over 1927.

Du Pont 1928 sales increased 1,082,000 pounds or 50% over 1927 total. Total Competitors' sales increased 438,000 pounds or 81% over 1927.

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Du Pont received 76% of the total business in 1928 as compared to 79% in 1927. The competitors received 24% of the total in 1928 as compared to 21% in 1927.

TABLE IV

COMPARISON OF 1927 AND 1928 SALES
SHOWING INCREASES

	1927	%	1928	%	Increase	% of Increase
BIRN & WACHENHEIM	376	15	662	16	286	76%
HENLE	150	6	302	8	152	100%
MISCELLANEOUS	11	.4	11	.3	---	---
TOTAL COMPETITION	537	21.4	975	24.3	438	81%
DU PONT	2000	79.	3082	76.	1082	50%
TOTAL EST. SALES	2537	100.	4057	100.	1520	60%

This points out an unfavorable decrease of 3% in the relative position of Du Pont Cellophane Co. when comparing the percentage of Du Pont sales in 1927 and 1928 to the total estimated pounds of transparent sheeting sold in the United States.

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During the first quarter of 1929, it is estimated that 1,170,000 pounds of transparent Cellulose sheeting was sold in the United States. This is an appreciable increase over the sales for the similar quarter in 1928 and the last quarter of 1928.

During the first quarter of 1929, the Du Pont Cellophane Co. increased its relative position in the industry considerably. The first quarter of 1929 was the largest quarter in sales volume in the history of the Du Pont Cellophane Co.

Table 1 shows that of the total transparent Cellulose sheeting sales during the first quarter of 1929, 86% went to Du Pont and 14% to our competitors. (See Table III Page 4.)

The increase in Du Pont sales during this period can be definitely credited to the following factors:

1. Reductions in Price: which make the use of Cellophane possible on items which heretofore could not stand the cost of Cellophane. These price reductions have forced the importers to stop their practice of giving special price concessions.

2. Consistent improvement in the quality of Cellophane Produced: Actual tests by manufacturers have convinced them that the quality of Cellophane is superior to the imported material.

3. Increased selling force: has brought about more complete coverage of the trade.

4. Development of a moisture-proof sheet: Has enabled us to regain business from our competitors and develop new business particularly in those industries which require a moisture-retaining or repellant wrapping material.

5. Promoting development of automatic wrapping machines: to wrap packages in Cellophane. Machine wrapping requires roll Cellophane which we could supply and our competitors could not supply. Not only is an economy affected, in labor operation, but also in cost, as roll Cellophane is cheaper than sheet stock. This forced competition out of the field of big business.

6. Increased service to manufacturers: Manufacturers more than ever, are looking to Du Pont Cellophane Co. salesmen for merchandising ideas.

The recently installed Package Development Department is another step forward to increase our service to manufacturers.

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7. Our Saturday Evening Post consumer advertising is creating a public acceptance for Cellophane wrapped items and manufacturers are eager to have their product associated with a Du Pont product, both for prestige and advertising value.

8. Quicker delivery has enable us to regain business from firms who in the past have relied upon over-night delivery from our competitors. This is particularly true of accounts in the Chicago District who are now being supplied from the recently established Chicago Warehouse.

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SECTION 4

TRADE LOST OR GAINED

BY DU PONT & COMPETITORS

FIRST QUARTER - 1929

This includes higher class accounts who have been lost to or gained from our competitors. We have given figures showing net gains or losses.

(Figures shown in Pounds)

	LOST	GAINED	NET LOSS or GAIN
BIRN & WACHENHEIM	26,469	--	26,469 (Loss)
HENLE	2,706	667	2,039 (Loss)
MISCELLANEOUS	--	--	--
DU PONT	667	29,175	28,508 (Gain)
TOTAL	29,832	29,832	28,508 (Gain)

Comparing trade lost and gained we see that Du Pont gained 29,832 pounds from our competitors during the first quarter of 1929.

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ACCOUNTS REGAINED

FROM COMPETITORS

FIRST QUARTER - 1929

This shows the detail analysis of accounts regained from competitors with the volume of business involved and reasons.

	ACCOUNT	TOWN	STATE	REGAINED FROM	DU PONT SALES 1st QUARTER- lbs.
1.	Detroit Candy Co.	Detroit	Mich.	B.& W.	320

Were getting 1st class stock which was billed at second class price. B & W has discontinued this practice.

2.	McCallum Hosiery Co.	North-ampton	Mass.	Henle	896

Were getting transparent sheeting at a lower price. At the present time the competitors are adhering more rigidly to their price list which is identical to Du Pont's. Are also convinced that the quality of our stock is superior to the imported material.

3.	Jacob E.Decker & Sons	Mason City	Ia.	B.& W.	2214

Were buying "Fenestra" thru the American Meat Packers Institute due to an additional 3% discount.

Now buying from Du Pont under contract. Claimed B & W was sending them defective material.

4.	Rockwood & Co	Bklyn.	N.Y.	B.& W.	723

Constant development of new units by our salesman and reduction in price have regained this account.

5.	Louis Sherry	L.I.C.	N.Y.	B.& W.	405

Were not satisfied with B & W service.

6.	American Caramel Co.	Lancaster, Pa.		B.& W.	106

Were getting better price. Regained by Du Pont by supplying them with seconds.

7.	E.C.Schack Co.	Bklyn.	N.Y.	B.& W.	755

Du Pont's recent price reductions have made a favorable impression.

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ACCOUNTS REGAINED FROM COMPETITORS - (CONTINUED)

	ACCOUNT	TOWN	STATE	REGAINED FROM	DU PONT SALES 1st QUARTER 1936
8.	Metro Chocolate Co.	Bklyn.	N.Y.	B & W	518

Was buying from B & W on friendship basis only. Are now giving our plain dyed seconds a trial.

9.	Bonita Co., The	Fon Du Lac	Wis.	B & W	454

They are now giving Du Pont part of the business, due to the excellent service given by our Chicago warehouse.

10.	Maillard Candy Co.	L.I.C.	N.Y.	B & W	882

Are now giving their business to us on the strength of the recent Atlantic City Display given to them.

11.	Bunte Bros.	Chicago	Ill.	B & W	367

This account was won by B & W from our agent, Catty. Quicker delivery made possible by our Chicago warehouse, enabled us to regain the business.

12.	Great A.& P. Tea Co., N.Y.C.	N.Y.		B & W	4100

Have signed an agreement. However, we are not yet getting the business from their Chicago branch. They have come to realize that Du Pont is the natural source of supply.

13.	Economy Bias Binding Co., N.Y.C.,	N.Y.		B & W	640

Complained of "sticky" Cellophane and went over to B & W. Working with them on machine wrap has enabled us to regain their sheet requirements until machine is received.

14.	Farley Candy Co.	Chicago	Ill.	Henle	1059

Is comparing Du Pont stock with Krystal Klear. If Cellophane compares favorably we will get the future business.

15.	Sweetheart Sweets Candy Co.	N.Y.C.	N.Y.	B & W	828

Reduction in price undoubtedly regained this company's requirements.

16.	Euclid Candy Co.	Bklyn.	N.Y.	B & W	1878

Du Pont price reductions favorably impressed this company. B & W has also fallen down on deliveries.

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ACCOUNTS HOLDING [illegible]

GOV'T EXHIBIT NO. 431
Civil Action 1216
DU PONT SALES

ACCOUNT	TOWN	STATE	[illegible] FROM	1st QUARTER 1[illegible]s.
17. F.H.Roberts	Boston	Mass.	Henle	1314

Are now signed on a contract agreement with Du Pont. Embossed Cellophane which the competitor could not supply was used as an entering wedge. The improved quality of our stock is also an important factor. Previously they believed that the competitor's material was superior to ours.

18. Swift & Co.	Chicago	Ill.	B & W	

This account was lost to B & W. They were receiving a better price from the competitor. Du Pont price reductions have made it possible for this account to use printed Cellophane. They are now purchasing printed Cellophane from the Shellmar Products Co.

19. Mama Cookie Co.	Chicago	Ill.	B & W	3351

This account has adopted M.P. Cellophane, which is not supplied by our competitors. The Boston Branch of Mama Cookie Co. was the only one to show a profit in 1929. This they credit in part to the use of moisture-proof Cellophane instead of regular transparent sheeting. By using a moisture-proof Cellophane they reduced the return of cookies due to staleness practically to nothing. This led to the general adoption of Du Pont Moisture-proof Cellophane at all branches of the Mama Cookie Co.

20. Ward Baking Co.	N.Y.C.	N.Y.	B & W	4662

Birn & Wachenheim could not supply them with #450 weight Cellophane. In an emergency they purchased this material from Du Pont.

21. Walker Candy Co.	Boston	Mas[illegible]	Henle	333

Compared "Cellophane" with the "Krystal Klear" he was using and found the quality of Cellophane to be superior.

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ACCOUNTS LOST TO COMPETITORS

FIRST QUARTER - 1929

This includes accounts who were using Du Pont Cellophane and are now using competitive material.

ACCOUNT	TOWN	STATE	COMPETITOR	EST. COMPETITOR SALES 1ST QUARTER 1929
Dexdale Hosiery Co.	Lansdale	Pa.	Henle	670

Getting a lower price from Henle.

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COMPETITOR'S POLICIES

Price

The importers have consistently maintained a policy of quoting prices about 5% lower than ours.

In addition they have offered special price concessions such as offering c[illegible]t price for case orders to be shipped in quantities of less than a case. (A case of Cellophane weighs about 325 pounds, contains 7 million square inches of Cellophane).

Another method employed by our competitors was to sell first class stock and bill it as second grade material.

Still another practice was that of selling a heavier weight of stock than that billed.

One important account was won over to competitive material by their offer of selling their stock size sheets and then charging only a very nominal sum for cutting these sheets down to size. This appeared on paper to be a price advantage of $54. a case. But the actual operation of the plan proved it to be costly to the customer because of wasteful and inexpert cutting.

Our price reductions in 1928 and the decision by the U. S. Customs Court changing the classification of competitive product from "a Gelatin Compound" to "a Cellulose Compound" thereby automatically raising the tariff have forced our competitors to announce to the trade that all sales would be made strictly on the basis of their price list.

It does not appear likely that we shall again be in an unfavorable position as to price.

Credit

These can best be described by saying that our competitors had no credit policies. They shipped on open account to concerns to whom we refused a line of credit. Generally this represented business which we did not want on our books.

Deliveries

In the case of deliveries our competitors had a distinct advantage because they delivered free of charge, whereas we charged freight. This was not a big item but big concerns made a point of it.

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By maintaining stock at many different points, by means of dealers our competitors made 24 hour deliveries. This was for many accounts a major consideration. Our salesmen, however, are getting their customers to place orders far enough in advance so that deliveries can be made in time to prevent holding up their work. Our delivery schedule is 5 days.

General Policies

Our competitors have followed one very definite method of securing business, viz they waited until we had developed an account and then offered them a lower price for material "just as good."

Service, merchandising ideas, the exhibit at Atlantic City, collateral advertising, all contributed to eliminating the competitors' lower price advantage.

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COMPETING COMPANIES

1. Birn & Wachenheim
121 West 17th St. - N. Y. C.

This firm commenced business on January 1st, 1913. At the present time they occupy the entire second and third floors of the building at the above address.

Prior to the manufacture of "Cellophane" in the United States, by the Du Pont Cellophane Co., they were, at one time, the sole American distributors of the French Cellophane Co.

At the present time the products included in their line are waxed paper, cotton batting and a transparent cellulose sheeting sold under the trade name "Fenestra".

"Fenestra" is manufactured abroad by the "Societe Industrialle de la Cellulose, Belgium". Birn & Wachenheim are the sole importers and distributors of this material in the United States.

"Fenestra" is sold in sheet form, standard stock size, approximately 36x40, in different thicknesses. It may also be had cut to any required size within these limits.

In addition to the plain transparent, B & W supply, "Fenestra" in various colors and embossings. They do not have a moisture-proof product.

Little is known of their financial standing. The only available statement is of June 30, 1923, showed assets $290,694 with no liabilities.

Little is known of the firm in a credit way as they do not buy locally, all purchas being made from foreign markets in usual import terms.

The officials of the firm are: Edward S. Birn, a man past middle age, who was formerly employed as manager of the Chicago Branch of the Henle Wax Paper Co.

Robert J. Wachenheim is a middle aged man who also, was formerly employed in the paper line.

M733

2. Henle Waxed Paper Mfg. Co, Inc.
535 E. 79th St. - N. Y. C.

This is a New York State corporation, organized on January 5, 1917, capitalized at $250,000 which was increased on May 15, 1918 to $300,000 with a paid in capital of $187,500. So far as we know this is a close organization. The present corporation at its inception succeeded to a business formerly conducted under the name of Henle Waxed Paper Co., (Not Inc.)

Beside manufacturing and distributing waxed paper, they are distributing transparent Cellulose sheeting, known under the trade name as "Krystal Klear." This material is manufactured by Wolff Co., Germany where itis known as "Transparit" and is imported into this country by Fish & Schurman, agents of the German firm. In addition to this Henle is a distributor for the Du Pont Fabrikoid Co., for enrober belts only.

"Krystal Klear" is supplied in sheet form in different thicknesses, colors and embossings.

The business is conducted from a good sized loft. They are reported as having a well established business and a good sales organization.

The officers active in its management are: Sidney Jacobson, President, Gerson Y. Jacobson, V. President and Treas., Wm. C. Schmitt, Secretary, Blanche L. Jacobson, Director. Effective June 1st, 1924, Leo Henle, the former president, became a director. At the present time, however, it is said that he is no longer connected with this company.

3. Miscellaneous

There are other firms engaged in the paper business who are importing transparent Cellulose sheeting, but these concerns are small and the amount of business they do is negligable.

M733

GOV'T EXHIBIT NO. 433
Civil Action 1216

DU PONT CELLOPHANE CO., INC.

QUARTERLY COMPETITIVE REPORT

THIRD QUARTER - 1929

OUTLINE OF CONTENTS

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F O R E W O R D

A very considerable increase in total sales tonnage is shown in the August and September sales figures. Part of this is seasonal and part may be attributed to the recent price revision downward, made effective by us on August first.

In past reports, it has been pointed out that the policy of Birn & Wachenheim, the chief competitor, has been to gain preference by giving special price concessions. Since all competitive material sold in the United States at present is imported from abroad, the attending shipping charges and present tariff rate, makes it unprofitable to offer material concessions below our present scale of prices - especially, in locations distant from point of importation.

We are advised that the Sylvania Industrial Corp'n who are at present erecting a plant at Fredericksburg, Va., for the manufacture of transparent wrapping material, and who are associated in organization with S.I.D.A.C., a Belgian concern, has taken over the business of Birn & Wachenheim who formerly distributed, in America, the product of the Belgian company. We are advised that the operation formerly carried on under the name of Birn & Wachenheim, will shortly be changed to that of the new owners and this activity will function as a part of this new corporation.

It is estimated that the Henle Wax Paper Co. sold only four thousand pounds during the third quarter. This seems to substantiate our statement in the last report to the effect that Henle has practically discontinued importing and distributing transparent cellulose sheeting.

The Du Pont sales volume for the third quarter of 1929 represents an increase of 42% over the previous quarter. It should be pointed out here that a very small percentage of this increase is due to business regained from competition.

M744

I - TRANSPARENT CELLULOSE SHEETING ESTIMATED AND ACTUAL INCREASE OR DECREASE IN SALES BY DU PONT & COMPETITORS

3RD QUARTER 1929 vs 3RD QUARTER 1928

POUNDS

	INCREASE	%	DECREASE	%
Birn & Wachenheim	23,920	32	-	-
Henle	-	-	88,512	95
Misc.	-	-	1,776	100
DuPont	750,000	89	-	-
Total	773,900	-	90,288	-

Includes only sales in the United States.

The actual Du Pont sales plus the estimated competitive sales during the third quarter of 1929 show an increase of 773,900 pounds or 78% over the third quarter of 1928. Competitors sales show a decrease of 90,288 pounds, while DuPont sales have increased 750,000 pounds.

Our records indicate that Birn & Wachenheim's accounted for sales during the third quarter of 1928 were far below that of any other quarter in 1928. Hence the increase shown above should not be construed as an actual increase in the business of Birn & Wachenheim.

M741

II * SUMMARY OF ALL TRANSPARENT CELLULOSE SHEETING SALES IN THE UNITED STATES *

POUNDS FIGURES ARE IN THOUSANDS

COMPETITORS AND DU PONT	3RD QUARTER 1929 LBS.	%	3RD. QUARTER 1928 LBS.	%	2ND QUARTER 1929 LBS.	%	9 MONTHS 1929 LBS.	%	TOTAL 1928 LBS.	%
Birn & Wachenheim	98	5.9	74	7.	130	9.5	351	8.3	662	17.
Henle	4	.2	93	9.	13	.95	54	1.3	302	8.
Miscellaneous	-	-	2	1.	1	-	11	.1	11	0.3
Total Competitors	102	6.1	169	17.	144	10.62	416	9.7	975	25.
DuPont	1,563	93.9	813	83.	1,212	89.38	3,789	90.3	2,948	75.
Est.Total in U.S.	1,665	100.	982	100.	1,356	100.	4,207	100.	3,923	100.

* DuPont; Foreign Sales Omitted.

III- 1929 SALES TO DATE

DU PONT & COMPETITORS

The chart on the following page indicates that during the third quarter of 1929 Du Pont sold 93.9% or 1,563,000 pounds of the estimated total Transparent Cellulose Sheeting sales in the United States. This shows a gain of 351,000 pounds or 5% over the previous quarter when we sold 89% of the total consumed.

Birn & Wachenheim, our major competitor sold 5% of the total during the third quarter compared with 9.5% in the previous quarter.

The sales of Henle, formerly an important competitor, are practically negligible this quarter being only.2% of the total.

1929 ESTIMATED TRANSPARENT CELLUOSE SHEETING.

SALES TO DATE - POUNDS

UNITED STATES ONLY

PERIOD	B.& W.	HENLE	MISC.	DUPONT	TOTAL
1ST-QUARTER	123,000	37,000	10,000	1,000,000	1,170,000
2ND-QUARTER	150,000	13,000	1,000	1,212,000	1,356,000
3RD-QUARTER	98,000	4,000	-	1,563,000	1,665,000
TOTAL TO DATE	351,000	54,000	11,000	3,775,000	4,191,000

DU PONT 90%
COMPETITORS 10%

M74H

IV - TRADE LOST OR GAINED

DUPONT AND COMPETITORS

THIRD QUARTER-1929

	LOST * ACCOUNTS	LOST * POUNDS	REGAINED ACCOUNTS	REGAINED POUNDS	NET GAIN OR LOSS POUNDS	
B.& W.	7	10,800	2	650	10,150	Loss
Henle	3	2,400	-	-	2,400	Loss
DuPont	2	650	10	13,200**	12,550	Gain

* Estimated

** Does not include accounts purchasing Cellophane from convertors and agents, which is business actually regained by DuPont.

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V - ACCOUNTS REGAINED FROM COMPETITORS

The major individual accounts regained from competitors during the Third Quarter of 1929 with the volume of business involved are as follows:

ACCOUNTS	REGAINED FROM	DUPONT SALES 3rd QUARTER-1929	REMARKS
Hammond Standish Co. Detroit, Mich.	B.& W.	380#	Were formerly purchasing B&W material through the American Institute of Meat Packers who were given a price concession by B&W. Price concession now eliminated.
Geo.A.Hormel & Co. Austin, Minn.	B.& W.	2500#	Formerly purchased competitive material through the American Institute of Meat Packers. Since B&W has discontinued giving price concession they have purchased from DuPont,-J.G. Hormel was formerly chairman of the buying committee of Meat Packers Institute.
John Morrell & Co., Ottumwa, Ia.	B&W	4100#	It seems that quicker deliveries made possible by our Chicago cutting plant was instrumental in regaining this business. DuPont price reductions and packaging suggestions were also factors.
Fanny Farmer Candy Shops, Henle Rochester, N.Y.		800#	Have adopted moisture-proof Cellophane for hard candy items, which is superior to

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ACCOUNTS	REGAINED FROM	DUPONT SALES 2ND QUARTER-1929	REMARKS
Fanny Farmer Candy Shops, Cont'd)			regular Cellophane on this type of ite
Star Baking Co., Cleveland, Ohio	Henle	600#	Branch of Continen Baking Co. Were re ceiving case lot price on less than case lot quantities Branch manager requisitioned DuPont Cellophane but was supplied with Henle material. Main office now complying with managers preference.
H.C.Bohack Co., Brooklyn, N.Y.	B.& W.	Through Printer- DuPont-160#	Claimed they were receiving defective Cellophane and went over to competitors Have now adopted printed Cellophane which may only be had in DuPont material.
Osfers Candy Co. Brooklyn, N.Y.	B&W	Through Printer.	This account has adopted printed Cellophane.
J.B.Carr Baking Co., Wilkes-Barre,Pa.	B&W	1780#	Were formerly using B&W material purchased through the Biscuit & Cracker Associatio at a special discount. DuPont price reductions and service have enable us to win their business.
Henry Heide,Inc. N.Y.C. N.Y.	B&W	Purchasing Cellophane thru DuPont agent & printer.	Packaging suggestions was the greatest factor in getting this busines Placed business with Catty-Euler, N.Y.C. (DuPont agent) to get quicker deliveries.

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ACCOUNTS	REGAINED FROM	DUPONT SALES 3RD QUARTER-1929	REMARKS
Richard Hudnut Co. N.Y.C. N.Y.	B&W	Purchasing thru DuPont Agent. (Catty-Euler)	Now purchasing all requirements throug Catty-Euler.
Frank P.Kruger Co. N.Y.C. N.Y.	B&W	"	Were getting a bett price from B&W. With price on an equal basis they prefer DuPont. However, prefer to place their busines with our agent.
Blue Ribbon Bakery, Chicago, Ill.	B&W	Buying from our agent Catty-Euler.	Purchased from B&W because we would not extend credit to them. DuPont regained the business- they are purchasing thru our agent Catty-Euler.
Purity Bakeries,Corp. Chicago, Ill.	B&W	Using printed Cellophane purchased from F.C. Traver Paper Co.	Switched to printed material which is available only in DuPont material.
Small Bros. Mfg.Co. Fall River, Mass.	Henle	1000#	Formerly used DuPont material but switched to competitor due to misunderstanding on extra charge for die cutting. Are now reconciled and buying from DuPont.
Nutlax Corp. N.Y.C. N.Y.	B&W	200#	This account is now wrapping their product by machine. This necessitates Cellophane in roll form, which is not produced by our competitors at the present time.

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ACCOUNTS	REGAINED FROM	DUPONT SALES 3RD QUARTER	REMARKS
Stahl-Meyer, Inc. N.Y.C. N.Y.	B&W	1700#	Were getting a better price from B&W-with price on an equal basis they prefer DuPont so as to take advantages of merchandizing suggestions, collateral advertising and service.

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VI - ACCOUNTS LOST TO COMPETITORS

The individual accounts lost to competitors and the amount of business involved is as follows:

ACCOUNTS	LOST TO	ESTIMATED COMPETITOR SALES POUNDS	MAJOR FACTOR RESPONSIBLE FOR LOSS
Parfumerie DaVette Baltimore, Md.	B&W	350	Are getting quicker delivery from B&W.
Heidelberger Conf. Co. Philadelphia, Pa.	B&W	300	Received defective Cellophane. Buying small quantities of Competitor material.

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VII - SUMMARY

The price reduction of August 1st made price shading by the competitor more difficult than in the past. With this factor eliminated some concerns formerly using competitive transparent sheeting found it advantageous to buy from us. The preference B & W gained by offering special discounts to members of the American Institute of Meat Packers has been removed. With prices equal the meat packers appreciate that Du Pont has more to offer in the way of constructive suggestions and better delivery service made possible by our Chicago cutting plant and several accounts are now using us as the source of supply.

The increased use of fabricated Cellophane is another factor which has enabled DuPont to secure business formerly enjoyed by competitors. The trend in the candy and meat industries, (two of the largest users of Cellophane), seems to be toward printed Cellophane. Inasmuch as printed sheeting is available only in DuPont material at the present time, DuPont has a decided advantage.

The Chicago cutting plant has been a factor in regaining competitive business and holding business previously gained in the Chicago Market. This is made possible by quicker delivery service to accounts being serviced by the cutting plant.

As has been mentioned in previous reports, moisture-proof Cellophane continues to be greatly responsible for DuPont's relative position. This type of sheeting is necessary in the cigar and baking industries and to some degree in the candy industry. At the present time DuPont is the only one manufacturing a moisture-proof transparent sheeting.

The assistance in packaging and merchandising problems offered by our sales organization also continues to be a factor in regaining accounts.

M741

GOV'T EXHIBIT NO. 434
Civil Action 1216

DU PONT CELLOPHANE CO., INC.

QUARTERLY COMPETITIVE REPORT

FOURTH QUARTER 1929

SALES RECORD DEPARTMENT

JANUARY 25, 1930

M739

F O R E W O R D

During 1929, Du Pont increased its relative position in the transparent cellulose sheeting industry considerably. It is estimated that Du Pont received 91.6% of the total business during 1929 as compared to 74.7% during the previous year.

Du Pont sales for 1929 show an increase of 2,752,972 # or 89% over 1928, whereas Competitor sales show a decrease of 46.4%.

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The following table gives a comparison of the change in the relative positions:

(Figures include sales in the Continental U. S. only)

COMPETITORS	1929 SALES-POUNDS	1929 % OF TOTAL	1928 SALES-POUNDS	1928 % OF TOTAL
Sylvania Industrial Corp. (Formerly Birn & Wachenheim)	457,000	7.2%	662,000	17%
Henle	54,000	1.0%	302,000	8%
Miscellaneous	11,000	.2%	11,000	.3%
Total - Competitors	522,000	8.4%	975,000	25.3%
Du Pont	5,604,000	91.6%	2,948,000	74.7%

Since we are only in a position to estimate competitor sales in the United States, Du Pont figures in the above table are limited to domestic sales; in order to secure a true comparison.

M739

1 - TRANSPARENT CELLULOSE SHEETING
ESTIMATED AND ACTUAL
INCREASE OR DECREASE IN SALES
BY DU PONT & COMPETITORS
FOURTH QUARTER 1929

The sales volume of the Du Pont Cellophane Co. during the fourth quarter showed an increase of 110% or 1,017,137# over the same quarter of 1928. Sales during the fourth quarter of 1929 increased 19.8% or 321,193# over the preceding quarter.

During this quarter it is estimated that Du Pont received 94.5% of the total transparent cellulose sheeting business. (See table 3 on page 7)

Table 1 on page 5 shows quarterly sales for 1928 and 1929 with the percentage of change for each quarter over the corresponding quarter in preceding years.

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Estimated Competitor sales for the fourth quarter of 1929, on the other hand, showed a decrease of 72.3% or 249,000# under sales for the fourth quarter of 1928.

During this quarter it is estimated that Competitors received 5.5% of the total transparent cellulose sheeting business. (See table 2 on page 5)

Sylvania Industrial Corp. (formerly Birn & Wachenheim) sales for the fourth quarter of 1929, as developed from salesmen's trade reports were 105,000#. This shows a decrease of 54% or 123,000# under the sales for the same quarter in 1928.

No sales by the Henle Waxed Paper Co. can be accounted for during the last quarter of 1929. Estimated sales by this Company during the last quarter of 1928 were 112,000#.

1928 and 1929 quarterly sales for Sylvania and Henle are given in Table 2 on the following page.

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TABLE 1 - DU PONT TOTAL QUARTERLY SALES

POUNDS

	1928	1929	% CHANGE
1st Quarter	618,335	1,003,887	+ 62.2
2nd Quarter	665,004	1,269,615	+ 90.9
3rd Quarter	874,896	1,620,571	+ 85.2
4th Quarter	924,627	1,941,764	+ 110.
TOTAL	3,082,862	5,835,837	+ 89.

DU PONT TOTAL SALES-CUMULATIVE

POUNDS

	1928	1929
1st Quarter	618,335	1,003,887
2nd Quarter	1,283,339	2,273,502
3rd Quarter	2,158,235	3,894,073
4th Quarter	3,082,862	5,835,837

M739

TABLE 11 - ESTIMATED COMPETITOR SALES - 1928 - 1929

POUNDS

	SYLVANIA			HENLE			TOTAL		
	1928	1929	% CHANGE	1928	1929	% CHANGE	1928	1929	% CHANGE
1st Quarter	198,000	123,000	- 35.	66,000	37,000	- 45.	264,000	189,000	- 28.
2nd Quarter	162,000	130,000	- 20.	32,000	13,000	- 60.	194,000	143,000	- 26.
3rd Quarter	74,000	98,000	+ 32.	93,000	4,000	- 95.	167,000	102,000	- 39.
4th Quarter	228,000	105,000	- 54.	112,000		-100.	340,000	105,000	- 71.
TOTAL	662,000	456,000	- 31.	303,000	54,000	- 82.	965,000	539,000	- 47.

M739

TABLE 111 * SUMMARY OF ALL TRANSPARENT CELLULOSE SHEETING SALES IN THE UNITED STATES *

POUNDS FIGURES ARE IN THOUSANDS

COMPETITORS AND DU PONT	4th QUARTER 1929 LBS.	%	4th QUARTER 1928 LBS.	%	3rd QUARTER 1929 LBS.	%	TOTAL FOR 1929 LBS.	%	TOTAL FOR 1928 LBS.	%
Sylvania Ind.Corp.	105	5.5	228	18.5	98	5.9	456	7.2	662	17.
Henle	-	-	112	9.1	4	.2	54	1.0	303	8.
Miscellaneous	-	-	4	.4	-	-	11	.2	11	0.3
Total Competitors	105	5.5	344	28.0	102	6.1	521	8.4	976	25.
Du Pont	1874	94.5	887	72.	1563	93.9	5604	91.6	2948	75.
Est.Total in U.S.	1979	100.	1231	100.	1665	100.	6125	100.	3923	100.

* Du Pont Export Sales Omitted.

3697

5720

11 - TRADE LOST OR GAINED

DU PONT AND COMPETITORS

FOURTH QUARTER-1929

The volume of business regained and lost by Du Pont and Competitors is insignificant in comparison with the total sales volume in the industry.

Trade gained by Du Pont from the competitors amounted to 14,236 pounds and involved seventeen concerns.

The change in the tariff situation has been a factor in restricting the importation of competitive material. This combined with Du Pont price reductions is partly responsible for the curtailment in the competitors' activities. The definite need in certain industries for a moistureproof sheeting and the competitors inability to supply it, has also aided Du Pont in regaining business formerly enjoyed by the competitor.

During the fourth quarter Du Pont lost four accounts to the competitor involving 3,300 pounds. Three of the four accounts who changed to the competitor complained of sticky Cellophane during the summer months. The other, a Philadelphia concern, claimed quicker delivery from the competitor.

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TRADE GAINED

	Number Accounts Involved	Volume Involved-Pounds
Sylvania Industrial Corp.	5	3,835
Henle Waxed Paper Co.	-	
Du Pont	17	14,236
	22	18,071

TRADE LOST

	Number Accounts Involved	Volume Involved-Pounds
Sylvania Industrial Corp.	17	14,236
Henle Waxed Paper Co.	1	535
Du Pont	4	3,300
	22	18,071

NET GAIN OR LOSS

	Volume - Pounds	
Sylvania Industrial Corp.	10,401	(LOSS)
Henle Waxed Paper Co.	535	(LOSS)
Du Pont	10,936	(GAIN)

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COMPETITOR ACTIVITIES

1 - Sylvania Industrial Corp.

As mentioned in the Third Quarter Competitor Report, the Sylvania Industrial Corporation, has acquired the business of Birn & Wachenheim, who formerly imported and distributed "Fenestra" in the United States. By doing this, Sylvania is establishing immediate contact with the consuming trade several months prior to marketing their own production.

The Sylvania Industrial Corporation incorporated last April with an authorized capitalization of 450,000 shares of common stock of no par value, is headed by Dr. Roger N. Wallach, former Vice-President of the Grasselli Dyestuff Corp.

Sylvania has entered into a working agreement with the Belgian Societe Industrielle de la Cellulose for the exclusive rights to their patents and processes for the North American Continent.

Sylvania has acquired a tract of land over 100 acres near Fredericksburg, Va. on which they are constructing a modern plant. The project will include a boiler plant machine shop and other mechanical units, and is estimated to cost close to $1,000,000, with equipment.

On November 27, 1929, Sylvania announced to the trade that the construction on the new plant was progressing rapidly and they hoped to be in full operation by the Spring of 1930. They also announced that they are pushing construction on initial units to produce moistureproof Fenestra, and expect to be in the market with this material sometime during February."

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1 - Sylvania Industrial Corp. (Continued)

In the past, the old Birn & Wachenheim Co. followed the line of least resistance in their sales efforts. They have not attempted to develope new business or new industries by constructive suggestions in the way of package development, merchanising suggestions, and consumer advertising, but rather have waited until Du Pont developed an account and then attempted to secure the business by offering price concessions, quicker delivery, and extended credit terms. Whether Sylvania follows the same policy remains to be seen. If, however, they work along the same lines as Du Pont, i. e. development of new uses and new industries, it is felt that this type of competition will be beneficial to the industry as a whole.

The development of moistureproof Fenestra is another important factor to be borne in mind. Up to the present time moistureproof transparent Cellulose sheeting was available only in Du Pont material. During 1930, it is believed Du Ponts' largest gains will come from the Tobacco and Baking industries. In both these industries a moistureproof sheeting is essential. Evidently Sylvania realizes the increased possibilities for this material and is devoting all efforts toward getting moistureproof Fenestra on the market as soon as possible.

Henle Waxed Paper Co., New York City

As mentioned in previous reports, Henle seems to be definitely out of the competitive picture. Reports from the field do not indicate that they have imported or distributed any transparent sheeting during the fourth quarter of 1928.

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GOVT EXHIBIT NO. 435
Civil Action 1216

U. C. I.

DU PONT CELLOPHANE CO., Inc.

SEMI-ANNUAL COMPETITIVE REPORT

JANUARY to JUNE 1930

SALES RECORD DEPARTMENT

JULY 21, 1930

M785

SUMMARY OF SALES CONDITIONS

For the six months period ended June 30th, sales of transparent cellulose sheeting for domestic consumption are estimated to be 5,192,000 pounds, an increase of 2,723,000 pounds or 110 per cent over sales for the corresponding period of 1929.

Du Pont sold 5,030,000 pounds or 96.9 per cent of the total for the industry, an increase of 2,864,000 pounds over sales for the first six months of 1929.

Accounted for sales by the Sylvania Industrial Corporation are estimated to be 162,000 pounds a decrease of 91,000 pounds.

Inasmuch as the volume of business secured by the competitor in the past has been very small and the fact that the efforts of our sales force are primarily devoted to missionary and development work, the competitive situation has not been over-emphasized. While the salesmen are required to report on all competitive activities, it is felt that they have been a little low in their individual estimates and the actual sales volume for Sylvania is somewhat higher than shown above.

A summary of Du Pont's and Sylvania's estimated sales compares as follows:

M785

COMPARATIVE SUMMARY

DOMESTIC TRANSPARENT CELLULOSE SHEETING SALES*

COMPETITORS AND DU PONT	FIRST SIX MONTHS 1930 POUNDS	%	FIRST SIX MONTHS 1929 POUNDS	%	LAST SIX MONTHS 1929 POUNDS	%
SYLVANIA IND. CORP. REGULAR	162,000	3.1	253,000	10.2	302,000	7.2
HENLE REGULAR	None	-	30,000	2.0	4,000	1.0
TOTAL COMPETITORS	162,000	3.1	303,000	12.2	306,000	8.2
DU PONT REGULAR	2,421,000	46.7	1,727,000	70.8	2,425,000	64.8
MOISTUREPROOF	2,609,000	50.2	439,000	17.0	1,012,000	27.0
TOTAI DU PONT	5,030,000	96.9	2,166,000	87.8	3,437,000	91.8
EST. TOTAL IN U.S.	5,192,000	100.0	2,469,000	100.0	3,743,000	100.0

* Du Pont Export Sales Omitted.

Competitor sal es figures have been secured from information developed by our salesmen in their contacts with concerns who are known to be using this material.

The increased consumption of Du Pont Cellophane has been largely due to the acceptance of MOISTUREPROOF material, manufactured only by Du Pont, in the baking industry and particularly in the cigar industry where a virtual revolution of the merchandising methods has been occasioned.

Other factors which have had an important bearing on the wider demand for transparent cellulose sheeting, are the lower prices and the rapid progress being made in the mechanization of wrapping methods, which have progressively opened up new markets, particularly in industries and for many purposes where former prices and hand wrapping methods prohibited its use. Aside from the direct advantage gained from automatic application, machine methods require the use of roll material and as this has not been supplied by Sylvania to date, it has been impossible for the competitor to participate in this type of business.

The growing trend toward converted transparent cellulose sheeting has also served to restrict the activities of the competitor and has been a factor in gaining competitive business, since converted material has only been securable in Du Pont sheeting.

M785

BUSINESS LOST OR GAINED

DURING THE FIRST SIX MONTHS OF 1930

A summary of business lost or gained with reasons is shown below:

	SYLVANIA	DU PONT
Gained		
Number of Accounts	10	32
Volume in Pounds	7,650	30,700
Lost		
Number of Accounts	32	10
Volume in Pounds	30,700	7,650
Net Gain		
Number of Accounts		22
Volume in Pounds		23,050
Net Loss		
Number of Accounts	22	
Volume in Pounds	23,050	

ANALYSIS OF REASONS FOR COMPETITIVE GAINS AND LOSSES

MTB5-

	SYLVANIA				DU PONT			
	GAINED		LOST		GAINED		LOST	
Reason	#Accts.	Lbs.	#Accts.	Lbs.	#Accts.	Lbs.	#Accts.	Lbs.
Price			3	1277	3	1277		
Quality	1	1000	2	428	2	428	1	1000
Credit	3	1350					3	1350
Reciprocity			1	2513	1	2513		
Deliveries	3	3050	4	8660	4	8660	3	3050
Personal	1	750					1	750
Not Specified	1	1000	8	5871	8	5871	1	1000
Service			2	2951	2	2951		
Business gained or lost by Du Pont, Agents and Convertors	1	500	12	9000	12	9000	1	500
	10	7650	32	30700	32	30700	10	7650

ACTIVITIES OF COMPETITOR

PRODUCTION

The Sylvania Industrial Corporation is reported to be putting the finishing touches on their $1,000,000 plant at Fredericksburg, Virginia. A recent news article states that the first unit of the new plant was put into operation on May 24th. It is understood that two machines with a capacity of 50,000 lbs. a month each are now in operation. Completion of other units is being rushed and they are expected to be in production shortly.

Sylvania originally announced that the first unit, which would be devoted to the manufacture of a Moistureproof sheeting, would be in operation in February 1930 and additional units for the production of regular material in the Spring of 1930. Difficulties in processes and power plant construction, however, have retarded the competitors announced marketing program.

NAME OF PRODUCT

The imported material marketed by Birn & Wachenhim and later by Sylvania was sold under the trade name

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"Fenestra". Recently the Sylvania Company attempted to register the name "Sylphane" but due to the similarity in trade names, this action was opposed by the Du Pont Company and as a consequence the name "Sylphrap" was adopted.

PRICE

Sylvania has met each Du Pont price reduction. The lower prices, however, have tended to make them adhere more closely to their publ ished price schedule than previously.

SALES AND ADVERTISING METHODS

The Sylvania Company has augmented the original sales organization acquired through their purchase of Birn & Wachenheim and reports from the field indicate that they now have nation wide coverage.

Working agreements have been entered into with Pollack Bros. & Co., L td. of Montreal, Toronto, Winnepeg and Vancouver, and with Blake, Moffitt & Towne, paper jobbers of San Francisco, to serve as agents. Blake, Moffitt & Towne have branch offices in the principal cities on the Pacific Coast. They will have exclusive

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agency rights in the states of Washington, Oregon, California, Idaho, Nevada and Arizona, and plan to furnish the trade with cut to size as well as stock size material.

Thus far, there has been no consumer advertising such as the Du Pont Campaign in the Saturday Evening Post. Recently the first trade paper advertisement of Sylvania appeared in the National Provisioner, the leading journal of the meat industry. Considerable publicity has been obtained through news and trade articles.

An arrangement for package design and service has been entered into with the Package Design Corporation of New York City.

DISTRIBUTION

An analysis of the accounts using competitive material reveals that the Sylvania Company has its greatest strength in the candy industry where it is estimated they receive 60 per cent of their entire business. The baking industry is next in importance accounting for 17 per cent of their sales. The remaining 23 per cent is distributed over 15 other varied industries.

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Geographically, the bulk of Sylvania's business has been centered about Metropolitan New York and Chicago areas.

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GOV'T EXHIBIT NO. 436
Civil Action 1216

DU PONT CELLOPHANE CO., INC.

SEMI ANNUAL COMPETITIVE REPORT

JULY TO DECEMBER, INCLUSIVE, 1930.

SALES RECORD SECTION

JANUARY 27, 1931.

M 786

SUMMARY OF SALES CONDITIONS

Consumption of transparent cellulose sheeting in Continental United States is estimated to have been 12,605,000 pounds in 1930, an increase of 6,479,000 pounds or 105 per cent over sales for the year 1929.

Du Pont sold 12,165,000 pounds or 96.5 per cent of the total for the industry for 1930, a net gain of 6,561,000 pounds or 117%.

Sales by the Sylvania Industrial Corporation, the sole competitor in 1930, are estimated to have been 440,000 pounds, a decrease of 17,000 pounds.

The relative positions of the competing companies is illustrated by the following table:

M786

TRANSPARENT CELLULOSE SHEETING SALES

(Figures include sales in the Continental United States only)

COMPETITORS	1930 SALES-POUNDS	% OF TOTAL	1929 SALES-POUNDS	% OF TOTAL
Sylvania Industrial Corp. (Estimated)	440,000	3.5%	457,000	7.2%
Henle *			54,000	1.0
Miscellaneous			11,000	.2
Total Competitors	440,000	3.5%	522,000	8.4%
Du Pont	12,165,000	96.5	5,604,000	91.6
TOTAL	12,605,000	100%	6,126,000	100%

* No longer competing.

For the six months period ended December 31st, 1930, sales of transparent cellulose sheeting in the United States are estimated to have been 7,384,000 pounds as compared to sales of 3,640,000 pounds for the corresponding period of 1929, an increase of 102 per cent.

The Du Pont Cellophane Co. sold 7,135,000 pounds or 96.6 per cent of the total, an increase of 3,698,000 pounds over sales for the last six months of 1929.

Estimated sales by the Sylvania Industrial Corporation for the last half of 1930 are 249,000 pounds as compared to 203,000 pounds for the same period of 1929, an increase of 46,000 pounds.

A summary of Du Pont's and Sylvania's estimated sales for each six month period since July 1929 follows:

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COMPARATIVE SUMMARY

DOMESTIC TRANSPARENT CELLULOSE SHEETING SALES

COMPETITOR AND DU PONT	LAST SIX MONTHS 1930 POUNDS	%	LAST SIX MONTHS 1929 POUNDS	%	FIRST SIX MONTHS 1930 POUNDS	%
Sylvania Ind.Corp. Regular	249,000	3.2	203,000*	5.6	191,000*	3.6
Du Pont						
Regular	3,365,000	45.5	2,425,000	66.6	2,421,000	46.4
Moistureproof	3,770,000	51.3	1,012,000	27.8	2,609,000	50.0
TOTAL DU PONT	7,135,000	96.8	3,437,000	94.4	5,030,000	96.4
EST.TOTAL IN U.S.	7,384,000	100.0	3,640,000*	100.0	5,221,000*	100.0

*Figures revised from previous reports in accordance with more recent information.

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While estimated competitor's sales for the full year 1930 show no increase over those for 1929, it will be observed from the foregoing table that slight gains have been made by Sylvania during the last half of 1930.

Considering that several of the competitor's more important accounts have recently been gained by Du Pont, it is evident that the sales effort expended by Sylvania has commenced to show its effects. This has been particularly true during the last quarter of 1930, and should be reflected to a greater degree in 1931.

Further observation of the foregoing table indicates that Sylvania has not yet marketed a moisture-proof material. This has been a distinct competitive disadvantage, and has prevented Sylvania from participating in the industries where Du Pont has made its greatest gains.

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BUSINESS GAINED OR LOST

JULY TO DECEMBER, INCLUSIVE, 1930.

GAINED BY SYLVANIA

Sylvania gained a small share of the business of two important Du Pont accounts, and has secured part or all of the business of 35 other accounts who formerly bought from Du Pont. Of the 35 only nine are buying exclusively from the competitor. The greater number of the accounts lost are small concerns with limited possibilities. The more important reasons for changing their source are credit, free delivery, and alleged quicker delivery and easier handling in wrapping.

The volume lost is estimated to have been 18,000 pounds.

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GAINED BY DU PONT

Three of the competitor's most important accounts have been gained by Du Pont. Thirteen other accounts of lesser importance are now securing part or all of their requirements from Du Pont.

The volume gained by Du Pont was 17,000 pounds.

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ACTIVITIES OF THE COMPETITOR

PLANT CONSTRUCTION

Operation of Sylvania's new plant at Fredericksburg began on May 24, 1930, approximately three months behind the announced schedule, with one complete unit functioning. The second unit went into production about August 1. These machines are of Belgian manufacture, and their installation was supervised by engineers from Sylvania's European affiliate, the Socitd Industrielle de La Cellulose.

IMPORTS

Despite the completion of the plant at Fredericksburg, the competitor has continued to bring in quantities of foreign material. It is believed that material brought in is principally specialties which are not being produced at the Fredericksburg plant such as colored, embossed and heavyweight material.

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ROLL STOCK

The competitor has come into the market with roll stock within the last few months and is submitting samples to the trade. The initial runs were of poor quality but there is no question a marked improvement has occurred and they are finding acceptance in the trade.

PRICE

The competitor has maintained the same list price as Du Pont on regular material. However, instances have been reported where quantity prices have been allowed on orders for less than case lot quantities. Free delivery is also given by Sylvania at several points such as New York and Chicago.

DISTRIBUTION

Appointment of the Pollock Paper and Box Company of Dallas, Texas, in September, as sales agents for the southwest, together with the appointment

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earlier in the year of Blake, Moffitt and Towne as West Coast Representatives, assures Sylvania of coverage in sections not solicited by their own field force. Incidental to the announcement of the appointment of Pollock Paper & Box Co., mention of a moistureproof sheeting, under the name "Nymphrap," was made. To date none of this material has appeared on the market.

Competitive material is also sold at a number of points through the extension of resale privileges to local dealers.

In the past, transparent cellulose envelopes have been obtainable only in Du Pont sheeting. Since October, however, the American Paper Goods Co., one of the concerns manufacturing Cellophane envelopes, has been supplying competitive material on the specification of customers.

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ADVERTISING

Sylvania is now conducting a very limited trade paper advertising campaign. Full page advertisements have appeared in the National Provisioner, the Manufacturing Confectioner, the Macaroni Journal, and Modern Packaging. They have tended to emphasize their trade mark and the quality of their material. They have not featured in illustrations the products of any actual users of Sylphrap. Many of the statements made as to the performance of their sheeting are open to question.

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GOV'T EXHIBIT NO. 437
Civil Action 1218

DU PONT CELLOPHANE CO. INC.

SEMI-ANNUAL COMPETITIVE REPORT

January to June , Inclusive, 1931

SALES RECORD SECTION

July 28, 1931

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DU PONT CELLOPHANE CO. INC.

SEMI-ANNUAL COMPETITIVE REPORT

January to June, Inclusive, 1931

I - SUMMARY OF BUSINESS CONDITIONS IN THE INDUSTRY

For the six months period ended June 30th the sales volume of transparent Cellulose sheetings has continued to increase. This despite the prolonged depression, is due chiefly to the following factors.

1- Aggressive sales promotion by this company which has progressively increased sales to old line consuming industries and opened up new markets.

2- Willingness of manufacturers to seriously consider new means of increasing the sale of their products during times of stress - which fact has been capitalized upon by our sales organization

3- Continuance of our policy of reducing prices when volume permits.

II - NEW DEVELOPMENTS

Recently the Sylvania Industrial Corporation introduced their moistureproof sheeting under the name of "Nymphrap". Initial runs on this material were not completly satisfactory, primarily due to sticking of the sheeting. This difficulty has been apparently remedied and the product is now finding acceptance in the trade.

No doubt when Sylvania has perfected this sheeting they will attempt to compete with Du Pont in the volume industries requiring a moisture retaining or repellant wrapper such as the tobacco, baked goods and candy industries.

Recently Sylvania announced to the trade they were operating at capacity and to provide for the added demand would increase their production facilities. They plan to add 4 new units increasing their total to 8 units, which when completed, will increase their production capacity to approximately 500,000 pounds per month. However, we find a very substantial quantity of sales especially in the baking industry is second grade material.

In addition to the increased activity by Sylvania, further activity was noted on the part of The Macolite Co. and The Newark Parchmer Paper Co. distributing a transparent cellulose acetate sheeting. Reports would indicate they have not as yet made much progress.

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III - ESTIMATED SALES VOLUME IN THE INDUSTRY

The sales volume in transparent cellulose sheetings in the first half of 1931 is placed at about 11,807,000 pounds compared with about 5,370,000 pounds in the same period in the preceding year or an estimated increase of 120 per cent.

IV - DU PONT SALES

During this period, Du Pont sold 10,757,000 pounds or 91 per cent of the (estimated) total, an increase of 5,578,000 pounds over sales in the first six months of 1930 or 106 per cent.

V - COMPETITIVE SALES

Due chiefly to the introduction of a so-called moistureproof sheeting, the Sylvania Industrial Corp. show a definite gain, according to our best information. The estimate for Sylvania sales in the first six months period is placed at 1,050,000 or approximately 9 per cent of the total volume.

The estimate of competitor's sales total is based on information we have regarding their consumption of certain essential materials, and is considerably in excess of the amount arrived at by using the figures of our salesmen.

This is ascribed to the newness of active competition and lack of experience on the part of our sales force in ascertaining competitive sales to individual accounts, and also to the fact that a considerable portion of the business goes through competitive dealers and agents and another large portion is sold to a few large accounts from whom it is difficult for us to get an estimate of their consumption.

The Sales Department is, however, making an intensive effort to impress upon the salesmen the fact that we must have more complete and reliable information as to our competitor's customers purchases and in the future we believe our records will improve in this respect.

In making the calculation of competitor's sales based on raw material consumption, we are conceding them the same efficiency as our own in percentage of raw material used to finished product. These figures check very closely with our knowledge of the number of machines they have been operating. Therefore, we believe these figures are in close approximation of their production for the past six months.

Detail of Du Pont sales and estimated competitive sales are given herewith by months:

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1931 Pounds

	Competitive (Estimated)	Du Pont (Total)
January	150,000	1,200,600
February	150,000	1,739,800
March	150,000	2,084,600
April	200,000	1,720,800
May	200,000	2,039,900
June	200,000	1,971,600
	1,050,000 (9%)	10,757,300 (91%)

VI - COMPARATIVE STATUS

It will be seen that the Sylvania volume is estimated for the six months period at 9% of the total volume. This reflects an advance in the relative status of our competitor compared to the first six months of 1930 when it is estimated they were receiving only 3.1% of the total business.

However, when interpreting the above figures, it must be considered that competitive sales for 1930 were based on salesmen's estimates which we now believe were low. Assuming the previous estimates were low, the advance made by Sylvania is not so great as it appears.

Below is given a detailed tabulation showing the changes of the relative position of Du Pont and the competitor as compared to the preceding six months periods in 1930:

Comparative Status

(Showing percentage of business enjoyed by Du Pont and competitor based on both salesmen's estimates and raw material consumption)

	DU PONT	SYLVANIA
First six months 1931	91. (95.9%)*	9. (4.1%)*
Last six months 1930	96.8	3.2
First six months 1930	96.4	3.6

* Indicates relative position using salesmen's estimate as basis

VII - FACTORS PROMOTING INCREASED SALES

Generally, increases have been made in all the old established Cellophane consuming industries. Specifically, the greatest gains have been made in the tobacco, baked goods and candy fields. Practically all of this increased business has been enjoyed by Du Pont and especially so in the tobacco industry.

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In regard to competitive gains, for the most part they have been made by gaining Du Pont business from a number of smaller manufacturers with whom we have had credit and delivery difficulties in the past and also a few larger accounts gained mostly by the competitor's policy of giving quantity prices on split shipments.

The principle reason for competitive sales increases in the second quarter is their apparent ability to supply second grade sheeting in unlimited quantities. Du Pont liquidated its stock of second grade Cellophane and the present production of this material is not sufficient to meet the requirements of the trade. Sylvania has capitalized on the fact that we cannot give satisfactory service on second class material. Reports from the field would indicate they are selling first class material at second class prices.

VIII - BUSINESS GAINED AND LOST

During the first six months of 1931 Sylvania gained wholly or in part the business of 54 accounts who formerly bought from Du Pont. The volume lost is estimated to have been 173,000 pounds. The majority of the accounts are the smaller type of concerns who prefer Sylvania as a source of supply due to their lenient credit policies and quicker delivery service. Of outstanding importance also, was Sylvania's ability to supply second grade material when Du Pont's supply became exhausted.

137,000 pounds of the total gained by Sylvania was secured from 4 large accounts. The reason for this loss of business is due to Sylvania allowing these accounts minimum prices on split shipments.

The business of 14 competitive accounts have been gained by Du Pont with a volume of 11,000 pounds involved.

Detail is tabulated herewith:

Gained by Sylvania	-	177,000 Pounds
" " Du Pont	-	11,000 "
New Gain by Sylvania		166,000 "

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COMPARATIVE SUMMARY

TRANSPARENT CELLULOSE SHEETING SALES

	FIRST SIX MONTHS 1931		FIRST SIX MONTHS 1930		LAST SIX MONTHS 1930	
	LBS.	%	LBS.	%	LBS.	%
SYLVANIA	1,050,000*	9%	191,000	3.6%	249,000	3.2%
DU PONT	10,757,000	91%	5,179,000	96.4%	7,449,000	96.8%
	11,807,000	100%	5,370,000	100.%	7,698,000	100.%

* Estimated on basis of raw material consumption. All other Sylvania figures based on salesmen's estimates.

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GOV'T EXHIBIT NO. 438
Civil Action 1216

H. C. B.

DU PONT CELLOPHANE CO., INC.

SEMI-ANNUAL COMPETITIVE REPORT

JULY TO DECEMBER, INCLUSIVE, 1931

SALES RECORD SECTION

FEBRUARY 9, 1932

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DU PONT CELLOPHANE CO., INC.

SEMI-ANNUAL COMPETITIVE REPORT

JULY TO DECEMBER, INCL., 1931

A. SUMMARY OF 1931 CONDITIONS IN THE TRANSPARENT CELLULOSE SHEETING INDUSTRY

Conditions in the Transparent Cellulose Sheeting Industry for 1931 show a continued increased acceptance by manufacturers, dealers and consumers, resulting in a record volume of sales for the year.

Estimated sales volume in the entire industry amounting to 27,220,000 pounds shows a gain of 14,151,000 pounds, or 108% increase over 1930 sales of 13,069,000 pounds.

Of this, Cellophane sales for the year 1931 amounted to 24,970,000 pounds, representing 92.2% of the total poundage produced by the entire transparent cellulose sheeting industry, an increase of 98% over the previous year.

It is estimated The Sylvania Industrial Corporation sold 2,250,000 pounds during this period, or 7.8% of the total volume, an increase of 1,810,000 pounds over their estimated volume of 440,000 pounds in 1930.

	1931	% of Total	1930	% of Total	Increase
DuPont	24,970,000#	92.8	12,629,000#	96.6	12,341,000#
Sylvania*	2,250,000#	7.2	440,000#	3.4	1,810,000#
TOTAL	27,220,000#	-	13,069,000#	-	14,151,000#

(*) 1930 sales based on salesmen's estimates.
1931 " " " machine capacity.

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The significant features of the industry for 1931 were as follows:

1. Increased competitive activity both in transparent cellulose sheetings and allied wrapping materials.

2. Virtual 100% adoption of cellulose sheeting by cigarette manufacturers and the substantial increases made in the baked goods, confectionery and textile industries.

   The cigarette market which was a negligible factor in 1930 accounted for 21% of the total volume in 1931. Baked Goods and Confectionery, both major consuming industries in 1930, increased approximately 100%. Textiles show a gain over six times the 1930 volume.

3. Increased use of fabricated articles in the form of bags and printed sheeting.

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B. ANALYSIS OF SALES SITUATION SECOND HALF OF 1931

I. ESTIMATED SALES VOLUME

Estimated sales volume for the industry in the last half of 1931 is placed at 15,413,000 pounds, an increase of 7,714,000 pounds or 100% over the same period in 1930, and an increase of 3,606,000 pounds over the preceding six months period in 1931.

II. DU PONT SALES

Cellophane sales in the last half of 1931 have been the highest thus far. During this period, Du Pont sold 14,213,000 pounds or 92.2% of the estimated total for the industry, an increase of 6,763,000 pounds or 90% over the same period in the previous year.

DU PONT SALES

	First Half	% Increase	Second Half	% Increase
1929	2,273,000	-	3,562,000	-
1930	5,179,000	128	7,450,000	109
1931	10,757,000	107	14,213,000	90

Further gains during this period, comparable to those made in the first half of the year were forestalled owing to the effect of general business conditions in the major consuming industries.

These conditions are as follows:

1. According to Internal Revenue Bureau figures, there was a reduction in the output of tobacco products in 1931 as compared to the previous year. Sharp declines in cigarette output were noted in the last quarter

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when October and December production dropped to 16% and 18% respectively below the same months in 1930. Cigar production declined approximately 10% during 1931.

2. Conditions in the baked goods industry were very unfavorable at the close of the year. The general tendency to decrease wrapping costs to meet lowered price levels brought about by cut-throat competition, has tended to retard our progressive gains in this market.

3. This condition was likewise true of the confectionery industry but to a lesser degree. Preliminary estimates point to a 13% decline in output during 1931.

III. COMPETITIVE SITUATION

In addition to the factors outlined above, competition became increasingly active.

The estimate for Sylvania sales in the second six months period is placed at 1,200,000 pounds *, or 7.8% of the total.

Sylvania increased its relative position in this period as compared to the second half of 1930, when it was estimated they secured 3.2% (based on salesmen's figures) of the total volume. However, our competitor's position decreased from 9% in the first half of 1931 to 7.8% in the succeeding period.

This decline, although not in actual sales poundage, can be ascribed to the increased sales volume from the cigarette business which was enjoyed almost exclusively by Du Pont.

(*This estimate is based on machine capacity and is believed to be in close approximation to actual sales. This estimate is in excess of our salesmen's figure which is 913,000 pounds, or 76% of the volume Sylvania is actually believed to be doing.)

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COMPARATIVE SUMMARY

	LAST SIX MONTHS 1931		LAST SIX MONTHS 1930		FIRST SIX MONTHS 1931	
	POUNDS	%	POUNDS	%	POUNDS	%
Sylvania	1,200,000	7.8	249,000*	3.2	1,050,000	9
Du Pont	14,213,000	92.2	7,450,000	96.8	10,757,000	91
Total	15,413,000	100.	7,699,000	100.	11,807,000	100.

* Salesmen's Estimate - believed to be lower than actual sales.

IV. COMPETITIVE ACTIVITIES

Sylvania's increased poundage in the second half of 1931 was secured mainly from the baked goods, confectionery, cigar and textile industries.

Gains in the baked goods industry were made possible owing to the fact that in the middle of the year our supply of second grade material was exhausted and current production was not sufficient to meet the demands of the trade.

Confronted with a lower margin of profit due to price cutting tendencies prevalent in the industry, a number of bakers found it practically impossible to absorb the additional cost of first grade material, and as a consequence, some of them placed their business with Sylvania who appeared to be able to supply moistureproof seconds in unlimited quantities.

In this connection, reports from the field would indicate that Sylvania was marketing "run of the mill" stock as second grade material. Many customers have commented on the fact that Sylvania's moistureproof material appeared to be first class stock although billed at a second class price.

This situation has been met by us. Our supply of second grade material is now adequate to meet the requirements of the trade which has enabled us to regain part of this business.

This condition was also in evidence in the confectionery industry but to a lesser degree.

Inroads in the cigar industry by competition have been made on the basis of the alleged ability of their moistureproof material to "heat seal" better than moistureproof Cellophane. Although it is appreciated this may be the case, the result has been obtained only by reducing the efficiency of their sheeting in other directions.

By recommending light weight sheeting and "seconds" Sylvania has gained business in the shirt branch of the textile industry. We have found that the most satisfactory sheeting for this product from a performance stand-

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point is 450 weight in first grade material which sells at a higher price.

Price concessions in the form of free delivery and quantity prices on small shipments and lenient credit terms have also been important factors in our competitor's ability to increase volume.

Sylvania has also been able to make connections with several converters who are fabricating bags and printed wrappers which has enabled them to secure additional business through this outlet.

From a geographic standpoint the keenest competition was noted in the southern states due to the fact that Sylvania has established a source of supply in Atlanta which has effected prompter delivery service and reduced shipping charges.

In addition to the increased activity on the part of Sylvania, there has been a marked increase in the activities of manufacturers of semi-transparent wrapping materials who are making a very determined bid for business on the basis of lower wrapping costs.

"Riegelite", an improved semi-transparent glassine manufactured by the Riegel Paper Co., has found acceptance in the baking industry and has gained a substantial volume of business.

"Riegelite" sells at about 17¢ per pound as compared to 84¢ for moistureproof Cellophane and 58¢ for second class moistureproof Cellophane.

We are confident that this business will be regained when conditions in the baking industry right themselves and the insufficient protection offered by glassine papers has proven it impractical.

The Eastman Kodak Company has developed and are offering a transparent cellulose acetate wrapping material known as "Kodapak". As yet, too short a time has elapsed to determine what acceptance this sheeting is finding in the trade.

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V. BUSINESS GAINED AND LOST

During the last six months of 1931, Sylvania gained business with 94 accounts who formerly bought Du Pont material. The volume lost is estimated to have been 176,000 pounds as compared to an estimated loss of 173,000 for the first six months when 54 accounts were involved.

Du Pont gained business from 49 competitive accounts with a volume of 55,000 pounds, thus reducing Sylvania's gains to a net figure of 121,000 pounds.

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GOV'T EXHIBIT NO. 439
Civil Action 1216

DU PONT CELLOPHANE CO., INC.

SEMI-ANNUAL COMPETITIVE REPORT

JANUARY to JUNE 1932

SALES RECORD DEPARTMENT

JULY 28, 1932

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DU PONT CELLOPHANE CO., INC.

SEMI-ANNUAL COMPETITIVE REPORT

JANUARY TO JUNE, INCL., 1932

The sale of Transparent Cellulose Sheeting in the first half of 1932, we have chosen to estimate at 15,551,000 lbs., an increase of 3,744,000 lbs. or 31.7% over the corresponding period in 1931 and a decrease of 462,000 lbs. or 2.8% below the last half of 1931.

DU PONT SALES

In the first six months of 1932, Du Pont sold 13,451,000 lbs. or 86.5% of the estimated total for the industry, a net gain of 2,694,000 or 25% over the first half of 1931. First half year sales, however, show a decrease of 762,000 lbs. or 5.3% below sales for the second half of 1931.

Du Pont sales by half year periods and their rate of increase since 1929 over previous periods is shown in the following table:

	First Half	% Increase	Second Half	% Increase
1929	2,273,000	-	3,562,000	-
1930	5,179,000	128	7,450,000	109
1931	10,757,000	107	14,213,000	90
1932	13,451,000	25	-	-

The consistent growth of the use of Cellophane was substantially retarded in this period chiefly as a result of economic factors which adversely affected consumption in the major consuming industries and interrupted increases expected from new outlets.

Evidence of shrinkage in volume in three of our more important industries is reflected in production figures received from authentic sources showing reduction in output compared to the first half of 1931, viz., Baked Goods (20%) Cigarettes (13%) and Cigars (17%).

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Shrinkage of volume to established trade was not restricted to these major industries, however, and the reduced sales volume of most of our customers reflected decreases in their individual purchases. Notwithstanding this, the new volume added produced a total tonnage increase.

Outsfde of sales to converters and printers and a few very large national concerns, the purchase of Cellophane is an incidental item with a very large percentage of our established accounts. This makes for a multiplicity of accounts, many of whom are of fourth class calibre whose total purchases must be largely estimated. For these reasons we have elected to liberally increase the recorded estimates of our principal competitor's volume rather than submit a possible under-estimate. There is a possibility that we have credited them with greater volume than their actual sales.

COMPETITIVE SALES

Sylvania Industrial Corporation sales for the first half of 1932, we have increased in volume to 2,100,000 lbs. Against these estimated sales of 2,100,000 lbs., we account for 1,500,000 lbs. from known users of competitive material as reported by our salesmen. This is equivalent to 71% of the estimated volume. On account of possible inaccuracy of our salesmen's figures; the fact Sylvania is distributing some of their sheeting through small local paper houses in such towns as Dallas, Texas, Omaha, Nebr., Denver, Colo., Milwaukee, Wisc., etc. and also the fact they are selling a number of smaller users of limited potential and liability for which figures are not available, it is believed their actual sales are probably in excess of the figure developed from known sources. By giving them credit for having sold 2,100,000 pounds, we are probably conceding them more than they actually did sell.

Sylvania went into 1932 with six machines available for operation, each machine having an estimated capacity of 75,000 pounds per month of saleable production. This fact, plus a knowledge of commitments for raw material supplies, would indicate that an average monthly production of 450,000 pounds was planned for the first part of the year.

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It is believed this anticipated production was not required. Statements have appeared in the local press to the effect that Sylvania reduced its operating force by 60 employees, and also that part time operations were being considered. Considering their present size, this represents a substantial reduction in personnel.

There are further indications that they did not sell the volume planned. In April of this year two additional machines were installed, bringing their total to eight, but according to direct and definite information it has been unnecessary to put the additional units into operation. Summarizing these facts, therefore, we believe estimated sales of 2,100,000 pounds in the first half of 1932 is a maximum estimate of their sales volume.

In the previous Competitive Report Sylvania's sales were placed at 1,200,000 pounds for the last half of 1931. We later revised this to a possible maximum total of 1,800,000 pounds. This was partly based on raw materials reported to have been used, and partly to estimated capacity during that period.

Using the revised figure for the last half of 1931 and comparing Sylvania's first half of 1932 sales estimate with previous periods, it will be seen they have continued to increase their relative position by obtaining 13.5% of the total business in the period under consideration as compared to 11.2% in the last six months of 1931, and 9% in the first six months of 1931.

As shown in the table on the last page, Sylvania's sales estimate represents an increase of 1,050,000 pounds or 100% over first half sales of 1931 and an increase of 300,000 pounds or 16.6% over the succeeding period.

Against this estimated increase of 16.6% by Sylvania, as previously mentioned Du Pont shows a decrease of 2.8% for the same period. Present economic conditions have also affected Sylvania's growth, but have been less of a factor with them than with Du Pont for the reason that Du Pont, with our greater established volume, receives the bulk of the business from the Baked Goods, Cigar and Cigarette Industries which have registered sharp declines in production,

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and account for approximately 55% of our annual sales. Thus Sylvania's volume may have been relatively less affected than Du Pont's.

BUSINESS LOST AND GAINED

An analysis of the individual accounts lost and gained by Du Pont in the first half of the year reveals Du Pont lost 180,000 pounds to Sylvania, and gained 99,000 pounds from them or a net loss of 81,000 pounds.

No major accounts have been lost to Sylvania during the first six months of 1932. Gains made by Sylvania represent the business, wholly or in part, of 104 accounts of medium and small size.

There is a disposition on the part of certain large organizations to give a small part of their requirements to Sylvania on the basis of maintaining two sources of supply. However, this has not reached general proportions.

Sylvania's principal gains were made in the Baking, Cigar and Shirt Industries. In the Cigar Industry, Sylvania's gains were made possible by the heat sealing feature of their moistureproof grade without the use of adhesives. In the Baking Industry the principal reasons were more lenient credit terms, quantity prices on small shipments, and local warehousing facilities in Atlanta, Ga. Gains in the Shirt Industry were the result of their recommending and selling second grade material which is contrary to Du Pont's policy. Second grade material has been found unsatisfactory as a shirt wrap, and is bound to prove a detriment to increased use of transparent sheeting in the industry.

COMPETITION FROM OTHER TRANSPARENT AND SEMI-TRANSPARENT SHEETINGS

The general depressed condition of the Baking Industry, which has been in a demoralized state since the middle of 1931 due to price cutting and cut-throat competition with a resultant declining margin of profit, served as an impetus

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to manufacturers of semi-transparent papers who are successfully capitalizing on their lower priced wrapping materials.

Facing these conditions, the industry became cost conscious to the nth degree which prompted the individual bakers to ignore the advantage gained by the use of Cellophane and to give consideration to cheaper wrapping materials in the form of semi-transparent, waxed, glassine wrapping paper.

A number of them discontinued Cellophane entirely, and others gave up Cellophane on low priced items in favor of such papers as Riegelite and Aquatone.

Investigation by the Du Pont Company amongst baked goods manufacturers, retailers and consumers reveals that the sentiment in the industry today is that a mistake was made in adopting inferior wrapping materials. Since adopting these materials sales have further declined and stale returns have increased.

This sentiment in the industry is reflected in Du Pont sales to Bakers. Monthly sales to the industry show a steady decline since the peak month of May 1931 until April 1932, during which month sales increased for the first time over the previous month and which have shown slight increases in each of the subsequent two months.

We believe, therefore, that the trend in the Baking Industry is to switch back to Cellophane and it is reasonable to expect Du Pont will gradually regain this business over a period of time.

The Eastman Kodak Company have been intensively soliciting the trade with their transparent cellulose acetate sheeting "Kodapak" in both plain and moistureproof grades. While a substantial number of organizations have taken in lots for comparative purposes no appreciable volume of sales can be accounted for. Their greatest apparent difficulty in securing volume sales is that the sheeting develops a static which interferes with efficient machine wrapping.

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COMPARATIVE SUMMARY

	FIRST SIX MONTHS 1932		FIRST SIX MONTHS 1931		LAST SIX MONTHS 1931	
	POUNDS	%	POUNDS	%	POUNDS	%
Sylvania	2,100,000	13.5	1,050,000	9.	1,800,000*	11.2
Du Pont	13,451,000	86.5	10,757,000	91.	14,213,000	88.8
TOTAL	15,551,000	100.	11,807,000	100.	16,013,000	100.

* Revised estimate

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GOV'T EXHIBIT NO. 440
Civil Action 1216

H. C. D.

DU PONT CELLOPHANE COMPANY, INC.

SEMI-ANNUAL COMPETITIVE REPORT

JULY TO DECEMBER-1932

SALES RECORD DEPARTMENT

January 27, 1933

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DU PONT CELLOPHANE COMPANY, INC.

SEMI-ANNUAL COMPETITIVE REPORT

JULY TO DECEMBER, INCLUSIVE - 1932

1932 TRANSPARENT SHEETING SALES

Despite shrinkage of output ranging from 10 to 30 percent in the major consuming industries, the transparent sheeting industry was able to show an increase in sales volume of 15.5 percent in 1932 over the previous year, according to actual sales made by Du Pont and estimates of competitive output.

Total sales are placed at 32,151,000 pounds in 1932 against 27,820,000 pounds in 1931 or an increase of 4,331,000 pounds. The rise is due to increased takings of approximately 5,600,000 pounds by the cigarette, candy, meat, paper specialty, textile and a number of less important industries which offset losses approximating 1,300,000 pounds in the baked goods, cigar and miscellaneous industries.

The lower consumption in the cigar industry is due solely to a shrinkage of cigar output of 16.6 percent. Responsible factors for the decreases in sales to the baked goods industry are the 25 percent reduction in soft cake sales and the tendency on the part of the manufacturer during the latter part of 1931 and early 1932 to revert back to less expensive semi-transparent wrappers on cheaper cake items. It is encouraging to note, however, that this trend has reversed itself, and the industry is turning again to transparent sheeting which should be accelerated by the recent reduction in the prices of transparent sheeting and the adaptation of machines to the wrapping of bakery products made possible by our new heat sealing Cellophane.

Although sales to the cigarette industry have increased in 1932 over 1931 owing to the fact that not all the leading brands were wrapped in all months of 1931, sales in 1932 were less than anticipated due to decreased cigarette production of 8.7 percent and the steady growth of 10¢ brands, few of which are in Cellophane.

Against total estimated Cellulose sheeting sales of 32,151,000 pounds in 1932, Du Pont shipments amounted to 27,651,000 pounds or 86 percent of the total for the industry. This compares with sales of 24,970,000 pounds in 1931 an increase of 2,681,800 pounds (10.7%) during which period it is believed Du Pont secured 89.8 percent of the total business.

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in 1931 or an increase of 1,550,000 pounds (55.4%), thereby enabling them to increase their position from 10.2 percent in 1931 to 13.7 percent of the total business in 1932.

Sales of Cellulose Acetate sheeting in 1932 for wrapping purposes is estimated at 47,000 pounds, according to figures supplied by our salesmen for known users of this material. However, information received from other sources, believed to be reliable but which cannot be confirmed, place the 1932 sales not in excess of 75,000 to 100,000 pounds. The Eastman Kodak Company manufacturers of "Kodapak" acetate sheeting are believed to be supplying 65 percent of this material with the remaining 35 percent produced by the Celluloid Company, Newark Parchment & Paper Company, American Products Mfg. Company and the Transolene Company. The principal outlets for Acetate sheeting at the present time are the textile and paper specialty fields and as transparent windows in paper boxes.

Yearly transparent sheeting sales by manufacturers for 1932 - 1931 are shown in the following table:

	1932	% of Total	1931	% of Total
Du Pont	27,651,000 lbs.	86.0	24,970,000 lbs.	89.8
Sylvania	4,400,000 "	13.7	2,850,000 "	10.2
Eastman (Acetate)	65,000 "	.2	----	-----
All Others (Acetate Material)	35,000 "	.1	----	-----
	32,151,000 lbs.	100.	27,820,000 lbs.	100.

SECOND HALF 1932 SALES

Insofar as second half 1932 sales are concerned, it is estimated 16,575,000 pounds of transparent sheeting were sold.

During this period Du Pont's volume was 14,200,000 pounds or 85.6 percent of the total as compared to 14,213,000 pounds or 88.8 percent in the second half of 1931 and 13,451,000 pounds or 86.4 percent of the estimated total volume in the first six months of 1932.

Estimated Sylvania sales in the second half of 1932 were 2,300,000 pounds representing an increase of 500,000 pounds over the same period in 1931 and 200,000 over first half 1932 sales. Increased volume by Sylvania has enabled them to increase their relative com-

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petitive position from 11.2 percent of the total business in the second half of 1931 to 13.5 percent and 14 percent in the first and second half periods of 1932, respectively.

Combined Acetate sheeting sales in this period are estimated at 75,000 pounds or .4 percent of the total volume.

Transparent sheeting sales by manufacturers for first and last six month periods in 1932 and the last six months in 1931 are shown in the table on the following page:

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COMPARATIVE STATEMENT OF TRANSPARENT SHEETING SALES

	LAST SIX MONTHS 1932		LAST SIX MONTHS 1931		FIRST SIX MONTHS 1932	
	POUNDS	%	POUNDS	%	POUNDS	%
Du Pont	14,200,000	85.6	14,213,000	88.8	13,451,000	86.4
Sylvania	2,300,000	14.	1,800,000	11.2	2,100,000	13.5
Eastman	49,000	.3	--	--	(25,000	.1
Other Acetate Sheeting Prod.	26,000	.1	--	--	(	
	16,575,000	100.	16,013,000	100.	15,576,000	100.

From the foregoing, it will be seen that Du Pont sales for the second half periods of 1931 and 1932 have shown practically no change. The more important reasons for this stability in volume are:

1. Shrinkage in cigarette output and the steady growth of the 10¢ brands since the middle of 1932.

   Up to a year ago 95 percent or more of the total output of cigarettes was composed of popular 15¢ brands. At the present time, it is estimated that the ten-centers have captured over 20% of the total output reducing the 15¢ manufacturers' portion to about 80 percent of the total.

   A few cheaper priced cigarettes and none of the big 10¢ sellers are wrapped in Cellophane at the present time because of the very low profit margin and the rapid strides they have been able to make with their present packages without the use of advertising and promotion. The growth of the ten-centers at the expense of the fifteen cent brands has thereby proportionately reduced the anticipated sales to this industry as evidenced by the consistent decline in Cellophane sales since July 1932. Sales to the industry amounted to 3,288,000 pounds in the last half of 1932 as against 3,865,000 pounds in the same months of 1931.

2. Decline in sales to the cigar industry. Total Cellophane sales to this industry in 1932, including direct and indirect shipments, approximated 3,400,000 pounds as compared to 4,592,000 pounds in 1931. The 1932 loss therefore, is approximately 1,192,000 pounds or 25.9 percent. The factors responsible for this decline have been first, the decreased production of cigars during the year (16.6%) and second, losses made to competition amounting to 300 - 400,000 pounds for the year.

3. Decline in sales to the soft cake industry of 586,000 pounds for the entire year of 1932 due to decreased cake output, the supplanting of Cellophane with semi-transparent wrapping materials on low price cake items and gains by Sylvania made possible by their ability to provide second grade moistureproof material when our stocks were depleted.

COMPETITIVE ACTIVITIES

Gains by Sylvania in the second half of 1932 were made possible by securing additional business in the baked goods, cigar, textile and confectionery industries. For the most part this business consisted of the replacement of poundage formerly received by Du Pont, for there is little evidence that they are doing a constructive type of selling with non-users of transparent sheeting.

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As covered in previous competitive reports, their ability to supply second grade material in apparently inexhaustible amounts has been the main factor for their progress in the baking industry.

A similar practice exists in the textile field, particularly on shirts, where they do not hesitate to recommend and sell second grade material, a practice which is opposed by the Du Pont Company on the basis of the inadequacy of the material for the purpose for which it is used. In many cases our representatives report this material has all appaerances of a first grade sheeting, although billed at the second grade price.

In regard to second grade material, or at least material billed at second prices, from reports from the field it would appear a sizeable percentage of Sylvania's sales consist of this grade of stock. This information seems to be verified by a study of individual competitive accounts which reveals that 51 percent of Sylvania's shipments to the manufacturer (not including sales to agents, converters and paper dealers on which limited information as to breakdown of stock is available) is comprised of second grade sheeting.

A comparable figure for Du Pont's volume of "seconds" is 18 percent of the total sales direct to the trade.

In the cigar industry Sylvania secured 300-400,000 pounds of business formerly enjoyed by Du Pont on the basis of the heat sealing (without use of adhesives) qualities of their moistureproof product. The bulk of their cigar business was from three important manufacturers which were regained entirely or in part by Du Pont in the closing months of 1932.

It is interesting to note that evidently due to a desire to keep selling expense low and limit creative type of promotion work Sylvania follows a policy of selling their product through numerous paper jobbers and converters throughout the country as opposed to Du Pont policy of limiting the number of indirect suppliers. This is clearly indicated in the following table giving a percentage comparison of Du Pont and Sylvania's distribution by industries. It will be seen that 53 percent of their total output, according to our best estimate, is distributed through agents, paper dealers and converters as compared to only 37 percent for Du Pont.

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PERCENTAGE DISTRIBUTION OF 1932 SALES BY INDUSTRIES

	Du Pont % of each industry to total sales	Sylvania % of each industry to total sales
Cigarettes	24	-
Baked Goods	10	9
Cigars	8	9
Miscellaneous	7	8
Candy	5	5
Textiles	3	7
Paper Specialties	3	3
Food Products	2	2
Meat	1	4
Agents, paper dealers and Converters	37	53
	100	100

57 percent of Sylvania's sales during 1932 consisted of moisture-proof sheeting and 43 percent of regular material, according to our estimate of their distribution direct to the manufacturer and not including their shipments to agents, converters and paper dealers.

Du Pont Sales direct to the manufacturer and comparable to the above figures show 79 percent is comprised of moistureproof Cellophane and 21 percent of regular material.

CELLULOSE ACETATE SHEETING

Such limited information as we have been able to secure in regard to the distribution of Acetate sheeting, would indicate maximum sales at not in excess of 75 - 100,000 pounds in 1932.

The Eastman Kodak Company (Kodapak) who are producing both a moist-ureproof and non-moistureproof sheeting are the largest in the field and are estimated to be securing 65 percent of the total Acetate business. Next in importance are the Celluloid Company (Protectoid), Newark Parchment & Paper Company (Aquatone), America n Products Mfg. Company (Inceloid) and the Transolene Company (Trans-owrap, Traceolene, Transolene).

Thus far acetate sheeting has secured its greatest acceptance as a wrapping material in the paper specialty field for the wrapping of stationery, greeting cards and paper napkins and tissue and in the textile industry on the basis of a clearer sheeting and less shrink-age.

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DU PONT CELLOPHANE COMPANY, INC.

SEMI-ANNUAL COMPETITIVE REPORT

JANUARY TO JUNE 1933

SALES RECORD SECTION

JULY 26, 1933

DU PONT CELLOPHANE COMPANY, INC.

SEMI-ANNUAL COMPETITIVE REPORT

JANUARY TO JUNE 1933

Transparent cellulose sheeting sales in the first half of 1933 are estimated to have been 18,152,000 lbs., an increase of 2,576,000 lbs. or 16.5% over the corresponding period of last year, with an increase of 1,577,000 lbs. or 9.4% above the last half of 1932.

Estimates of sales by the various producers with comparisons of previous periods and percentages of total volume secured by each, follow:

	First 6 Mos. 1933		Last 6 Mos. 1932		First 6 Mos. 1932	
	Pounds	%	Pounds	%	Pounds	%
Du Pont	15,307,000	84.4	14,200,000	85.6	13,451,000	86.4
Sylvania	2,745,000	15.1	2,300,000	14.0	2,100,000	13.5
Celluloid Co.	60,000	.3	26,000	.1	25,000	.1
Eastman	40,000	.2	49,000	.3		
	18,152,000	100.0	16,575,000	100.0	15,576,000	100.0

Little change has taken place in the relative position of the competitors. It is believed Du Pont secured 84.4% of the total volume as compared to 85.6% and 86.4% in the previous two six month periods, whereas it is estimated Sylvania secured 15.1% of the total in the first half of 1933 as compared to 14% and 13.5% in the preceding periods.

Du Pont Sales

As shown in the foregoing table, Du Pont sales in the six month period ending June 30, 1933 were 15,307,000 lbs. as compared with sales of 13,451,000 lbs. in the corresponding period of 1932, and 14,200,000 lbs. in the last half of 1932 or increases of 13.9% and 7.7% respectively.

Up to and including April of this year Du Pont sales remained approximately at the same level as the corresponding period in 1932. However, the improvement in general business experienced in the past few months reflected itself

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in our sales to nearly all the consuming industries with the result May sales were the second highest on record, and June sales exceeded all previous months. The increased volume in these months, which was beyond expectations, enabled us to close the first half of the year with poundage exceeding any six months period in the past.

The increase in Du Pont business resulted principally from larger purchases by the baked goods, cigarette, cigar and chewing gum industries.

As a result of the wrapping of special breads in the new heat-sealing Cellophane, which began in the latter part of 1932, and which has continued to expand, we have been able to add approximately 1,000,000 lbs. to the volume in the baking industry.

Takings by the cigarette manufacturers show an increase of 600,000 pounds above the first and second half periods of 1932. This gain is the result of two factors. First, the non-Cellophane wrapped 10¢ brands which made considerable inroads in the 1932 sales of the leading producers, were practically eliminated thru the reduction in price of the popular brands of cigarettes. Second, production of cigarettes substantially increased, particularly in May, the highest month on record, which was caused by the increasing of inventories by dealers and jobbers in anticipation of a price advance.

In the cigar industry, a gain of approximately 100,000 lbs. was made, the major proportion of which was taken from competition.

Increased consumption by chewing gum manufacturers as compared to the first six months of 1932 amounted to 360,000 lbs.

Sales by Sylvania Industrial Corporation

Gains were likewise made by the Sylvania Industrial Corp. in the first six months of 1933, when it is estimated they sold 2,745,000 lbs. or 15.1% of the total estimated volume for the period. This compares with estimated poundage of 2,100,000 (an increase of 30.9%) in the first six months of 1932, and 2,300,000 (an increase of 19.3%) in the second half of 1932.

Sylvania's gains have come principally from the meat, confectionery, textile, baked goods and paper goods industries. In the case of the first three industries, Sylvania has been able to secure a sizeable increase in volume through their printer, the Daniels Manufacturing Co. of Rhinelander, Wisconsin, who is under quoting the recognized Cellophane printers.

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In addition it is reported Sylvania permits combining unprinted and printed purchases for contract rebates which is contrary to Du Pont practice.

Continued unrestricted sales of second grade material and even third grade material at 40% and 50% discounts has also been responsible for their securing increased business in the baked goods, textile, meat and paper specialty industries. In this connection, however, there are recent evidences that Sylvania is starting to exercise some control over the distribution of "seconds". Moreover, it is reported shipments of this grade of material are actually seconds, whereas in the past material billed as seconds had all the appearances of first grade stock.

It is worthy of note that according to our estimates of Sylvania's shipments direct to the consuming trade 38% consisted of second grade material as against a comparable percentage of 19% for Du Pont.

Sylvania has also been benefited by the expansion of the use of transparent sheeting on special brands.

Sylvania continues to distribute almost half their production thru agents, paper dealers and converters according to our estimate of their distribution of sales by industries as given in the following table:

PERCENTAGE DISTRIBUTION OF SALES BY INDUSTRIES
(FIRST 6 MONTHS 1933)

	DU PONT % of each Industry to total sales	SYLVANIA % of each Industry to total sales
Cigarettes & Tobacco Products	27.0	---
Cigars	7.5	4.2
Baked Goods	13.9	13.6
Candy	5.6	7.7
Meat	1.5	4.0
Paper Specialties	2.6	3.2
Food Products	2.2	4.4
Textiles	2.4	9.5
Miscellaneous	5.2	5.8
Agents & Paper Dealers	10.9	12.0
Converters	22.2	35.4
	100.0	100.0

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As regards the proportion of moistureproof and regular material sales, it is estimated Sylvania's January to June 1933 business consisted 35% of moistureproof sheeting and 65% of regular material based on shipments direct to the trade and not including shipments to agents, converters and paper dealers. Du Pont's volume in this period to the same outlets was comprised of 88% moistureproof Cellophane and 12% regular material.

Following the lead of the Du Pont Company, Sylvania, for the first time, has featured the products of their customers' in trade paper advertising reaching the baked goods and cigar industries. Also with certain accounts it is reported they have subsidized customers' advertising for the purpose of having these consumers feature the name Sylvania in the customers' advertising.

Cellulose Acetate Sheeting

Acetate films have made headway in the textile and paper industries due to the absence of wrinkling and shrinkage.

The Celluloid Co. manufacturers of "Protectoid" in recent months has been the more aggressive of the two principal producers, although the volume secured by them has not as yet become an important factor in the transparent sheeting field. Recently the Celluloid Corp. have commenced to make a concentrated effort for business in the meat industry and have been successful in securing widespread interest which has resulted in a number of packers experimenting with this material. The claims made for the acetate films is that it will provide a neater appearing package thru the absence of wrinkling. Their efforts are aided in the meat industry owing to the fact printed acetate film is now available. This sheeting is printed by two converters who are also printing Cellophane.

According to our best estimate, total acetate sheeting sales for the period approximated 100,000 pounds of which the Celluloid Co. is believed to have secured about 60,000 lbs. and the Eastman Co. 40,000 lbs.

The prices for their thinnest grade are slightly higher than our 300 P.T. stock and slightly lower than our price for the heavier grades. However, we have found printers offering printed acetate at the same price as printed plain Cellophane.

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GOV'T EXHIBIT NO. 442
Civil Action 1216

DU PONT CELLOPHANE COMPANY, INC.

SEMI-ANNUAL COMPETITIVE REPORT

JULY TO DECEMBER 1933

Sales Record Section

January 23, 1934

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DU PONT CELLOPHANE COMPANY, INC.

SEMI-ANNUAL COMPETITIVE REPORT

JULY TO DECEMBER, INCLUSIVE, 1933

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1933 COMPETITIVE SITUATION SUMMARIZED

Sales of transparent cellulose sheeting by U.S. producers are estimated to have been 38,968,000 pounds in 1933. This total exceeds the 1932 estimate of 32,151,000 pounds by 6,817,000 pounds, or 21.2%.

Tabular comparison of sales by the principal manufacturers for 1932 and 1933 follows:

	1933	% of Total	1932	% of Total
Du Pont	33,079,000 lbs.	84.9	27,651,000 lbs.	86.0
Sylvania	5,624,000 "	14.4	4,400,000 "	13.7
Celluloid Co. (Acetate)	143,000 "	.4	35,000 "	.1
Eastman (Acetate)	122,000 "	.3	65,000 "	.2
	38,968,000 lbs.	100.0	32,151,000 lbs.	100.0

DU PONT SALES

In the early months of 1933 DuPont volume only slightly exceeded the corresponding 1932 level because of adverse conditions in our major consuming industries. Improvement in business conditions and the cumulative effect of DuPont promotion in the special bread industry began to be manifested by large gains beginning with May. These increases continued to near the year end, and resulted in a total volume of 33,079,000 pounds for 1933 as compared to 27,651,000 pounds in 1932 - a gain of 5,428,000 pounds or 19.6%.

Business secured in the special bread industry was, for all practical considerations, "new", since purchases for this product were negligible prior to 1933. Introduction of a heat sealing (without use of adhesives) Cellophane late in 1932 made possible active invasion of the bread industry, effort being concentrated on special breads and sweet doughs. The result was DuPont secured 2,900,000 pounds of additional business in this industry. Sylvania also obtained increased volume as the result of this development.

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A gain of 1,250,000 pounds was made in the cigarette industry. This was made possible by an increase in cigarette production, in turn caused by heavier withdrawals for inventory by jobbers and dealers in anticipation of price advances. Another factor was the decreased demand for cheaper cigarettes not wrapped in Cellophane, which had made heavy inroads in the sale of the popular Cellophane wrapped brands in 1932. These benefits accrued solely to DuPont as the cigarette industry uses our material exclusively.

Another factor of importance was the business regained from Sylvania in the cigar industry. Several important accounts returned to DuPont during 1933 and, despite some offsetting losses, were responsible for a net increase in sales direct to cigar manufacturers of approximately 70,000 pounds.

Substantial increases in business were also recorded in the miscellaneous food industries, our total gain in these fields, including both direct sales and those through agents and fabricators, aggregating about 960,000 pounds.

SALES BY SYLVANIA INDUSTRIAL CORPORATION

Sylvania is estimated to have sold 5,624,000 pounds in 1933 compared with 4,400,000 in 1932, an increase of 1,224,000 pounds or 27.8%.

Gains by this competitor resulted mainly from progress made in the meat, textile, baked goods and paper goods industries. In the meat industry, much of Sylvania's increase is the result of volume secured through their printer, the Daniels Manufacturing Company of Rhinelander, Wisconsin, who has consistently under-quoted recognized Cellophane printers. In the textile, baked goods and paper goods industries an apparently unlimited supply of "seconds" was responsible for Sylvania securing some business which formerly represented consumption of first grade Cellophane. Such business was secured at discounts ranging from 25% to as high as 50% in a few instances. During the last half of 1933, however, the "seconds" factor became less important as the competitor evidently found continuation of this practice unprofitable, and reports from the field indicate a greater degree of control has been exercised recently over the distribution of second grade material.

SALES OF CELLULOSE ACETATE SHEETING

There has been a somewhat greater acceptance developed for acetate sheeting particularly in the textile and paper products and dried fruit industries, but no serious inroads have

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been made on viscose business by the two principal producers of Acetate stock - the Celluloid Corporation and the Eastman Company. Consumption by known users of acetate sheeting is estimated to have totalled 265,000 pounds during 1933. Of this, the Celluloid Corporation is credited with 143,000 pounds and Eastman with 122,000 pounds.

SECOND HALF 1933 SALES

Total consumption of transparent sheeting in the second half of 1933 is estimated to have been 21,017,000 pounds. Of this, DuPont sold 17,772,000 pounds or 84.5% as compared to 15,307,000 pounds or 85.3% in the first half of the year. The DuPont gain of 2,465,000 pounds represents a 16.1% increase over volume in the first six months.

Sylvania's sales in the second half of 1933 are estimated to have been 3,080,000 pounds, an increase of 536,000 pounds or 21.0% over their estimated first half volume of 2,544,000 pounds. As noted previously in this report, Sylvania benefited by DuPont's development of the special bread field, securing increased business from their own bakery customers as they followed adoption by DuPont users. Gains in other fields were less marked, being mainly cumulative increases resulting from gains earlier in the year when Sylvania's less restricted "seconds" policy was in force.

In connection with Sylvania's business in "second" grade stock it is calculated about 35% of their sales direct to the trade in the second half of 1933 were in this category. This compares with an estimated 38% in the first half.

Sylvania continues to distribute a larger proportion of their output through indirect sources than DuPont. Careful estimates indicate that 40% of Sylvania's sales are secured through agents or converters while DuPont obtains but 35% of the total business through other than direct shipments to the trade.

Based on available information 56% of Sylvania sales in 1933 were Moistureproof material and 44% were of Plain Transparent stock. Comparable figures for DuPont sales in the same period consisted of 65% Moistureproof material and 35% Plain Transparent sheeting.

Acetate sheeting manufacturers, although making marked percentage gains during 1933 over their 1932 totals are still estimated to be securing less than 1% of the total business. Our estimates, which are based on consumption by known users, place poundage secured by the Celluloid Corporation and the Eastman Company at 83,000 pounds and 82,000 pounds respectively for the last six months of 1933.

Comparative sales by DuPont and competitors for the first and last six months periods of 1933 and the last six months of

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1932 are shown in the following table.

COMPARATIVE SALES OF TRANSPARENT SHEETING PRODUCERS

	Last Six Months 1933		Last Six Months 1932		First Six Months 1933	
	Pounds	%	Pounds	%	Pounds	%
DuPont	17,772,000	84.5	14,200,000	85.6	15,307,000	85.2
Sylvania	3,080,000	14.7	2,300,000	14.0	2,544,000	14.3
Celluloid Corp.	83,000	.4	26,000	.1	60,000	.3
Eastman	82,000	.4	49,000	.3	40,000	.2
	21,017,000	100.0	16,575,000	100.0	17,951,000	100.0

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GOV'T EXHIBIT NO. 443
Civil Action 1216

ANNUAL COMPETITIVE REPORT — 1934

DU PONT CELLOPHANE COMPANY, INC.

Sales Record Section
January 29, 1935

DU PONT CELLOPHANE COMPANY, INC.

ANNUAL COMPETITIVE REPORT -- 1934

1934 SALES

Transparent cellulose sheeting volume during 1934, according to estimates exceeded that of 1933 by 21%. This considers sales made by the Sylvania Industrial Corporation, plus our own in those periods. For the year 1934 combined sales of both are placed at 48,018,800 pounds compared with 39,689,700 pounds in the previous year - a gain of 8,329,100 pounds.

During the year 1934 it is estimated Sylvania sold 9,200,000 pounds which exceeded their 1933 volume of 6,610,600 pounds by 39.2%, or 2,589,400 pounds. In the same period our sales, exclusive of sales to Sylvania, were 38,818,800 pounds which is an increase of 17.4%, or 5,739,800 pounds over the 1933 figure.

In considering the change in relative standing, the figures show Sylvania's percentage of the combined sheeting volume improved from 16.7% in 1933 to 19.2% in 1934, during which period our own share of the business declined to 80.8% from 83.3% in 1933.

Increased tonnage enjoyed by Sylvania and our Company in 1934 consisted mainly of moistureproof sheeting. Combined moistureproof sheeting sales in 1934 in the amount of 31,520,900 pounds show an increase of 6,835,000 pounds, or 27.7% over 1933.

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Of this volume Sylvania sold 5,433,700 pounds thereby gaining 2,233,700 pounds, or 69.8% above the previous year, and the Du Pont Cellophane Company sold 26,087,200 pounds - a gain of 4,601,600 pounds, or 21.4%. As a result of the higher proportionate gain by Sylvania on moistureproof material, they have improved their competitive standing on this type of sheeting from 13% in 1933 to 17.2% in 1934.

So far as their relative position on plain sheeting sales to our own is concerned it remained fairly constant in 1934 as compared to 1933, both companies having shown an increase of approximately 10% and a continuation of the ratio 77% Du Pont and 23% Sylvania.

The following tabulation summarizes figures referred to:

	Plain Sheeting		Moistureproof Sheeting		Total	
1933	Pounds	%	Pounds	%	Pounds	%
Du Pont	11,593,500	77.3	21,485,600	87.0	33,079,100	83.3
Sylvania	3,410,600	22.7	3,200,000	13.0	6,610,600	16.7
	15,004,100	100.0	24,685,600	100.0	39,689,700	100.0
1934						
Du Pont	12,731,600	77.2	26,087,200	82.8	38,818,800	80.8
Sylvania	3,766,300	22.8	5,433,700	17.2	9,200,000	19.2
	16,497,900	100.0	31,520,900	100.0	48,018,800	100.0

DISCUSSION OF COMPETITIVE ESTIMATE

With the exception of results for the first four months of 1933 which we have estimated, the figures showing Sylvania's moistureproof sales represent their actual volume as supplied by them in their quarterly royalty statements.

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The figures for their plain sheeting tonnage on the other hand were arrived at by our own calculation of sales in this classification, augmented by a detailed analysis of our sales records with adjustments made to take into account purchases by hundreds of smaller users whose requirements are solicited by our agents and for whom we do not have records. Certain other available data applying to the industry in general, and statements from authoritative sources indicate our estimates of Sylvania's plain sheeting business are reasonably accurate and when added to the competitor's reported moistureproof volume may be taken as a close indication of the total volume actually done by them.

Considering both Du Pont and Sylvania (with exceptions noted) are selling to the same outlets, it may be expected a close correlation exists in the distribution of the competitor's volume as between plain and moistureproof material and our volume in these classifications. We have calculated Sylvania's 1933 plain sales to be 3,410,610 pounds, an amount slightly in excess of their reported sales on moistureproof material. It will be seen therefore, that 51.6% of their sales in 1933 consisted of plain material, and 48.4% of the moistureproof kind during which period our sales were 35% plain, and 65% moistureproof material.

During 1933 two of the largest items making up our moistureproof tonnage were sales in the aggregate amount of 8,029,000 pounds to the cigarette and smoking tobacco trades, to which outlets Sylvania has no comparable units of business because of the size of and our relations with these industries. Our net

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volume in 1933, excluding sales to the cigarette and smoking tobacco trades, shows a ratio of 46% plain and 54% moistureproof, which is not far from the proportions estimated for Sylvania.

Referring to the 1934 figures, our competitor reported the sale of 5,433,700 pounds moistureproof material. To this figure we have added our own estimate of 3,766,300 pounds for plain material, thus assuming for them a greater proportion of business in the moistureproof classification than in 1933, the ratio being 41% plain and 59% moistureproof. Reviewing our own figures for 1934, exeluding cigarettes and smoking tobacco, it is noted the close correlation continues to be maintained, we having sold 57% moistureproof and 43% plain material.

Another reason we are convinced our calculations are in line with Sylvania's activity is statements from authoritative sources which indicate their 1933 business was about equally divided between moistureproof and plain material, and the competitor's own statement that their greatest gain in 1934 was in the moistureproof classification, which verifies our own exhaustive study of their relations with the trade.

Also pertinent to this discussion is an item in Sylvania's annual letter of January 1st, 1935 to stockholders stating gross dollar sales for 1934 exceeded the 1933 figure by approximately 30%. In our calculations we have credited them with an increase of 39.2% in poundage, and 31% in dollar sales. For 1934 Du Pont registered a gain of 12.2% in dollar sales and a 17.4% increase in tonnage, the proportionately lower dollar increase in both

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cases being the result of the reduction in the price of transparent sheeting which took place in 1934.

It should be noted the increase in gross sales mentioned in Sylvania's letter referred to, also includes the sale of cellulose caps and bands and horse-hair. The sale of these items has been small relative to Sylvania's total volume, but considering the promotion of caps and bands was not undertaken intensively prior to 1934, we can calculate practically all this business is included in the 30% increase reported by them. As a result, our estimates, if anything, err on the high side.

INDUSTRY GAINS

Greatly increased purchases by the baking industry, increased cigarette production, and as a consequence a greater demand for transparent wrappers and increased usage on smoking tobacco packages were the chief factors in boosting transparent sheeting production in 1934.

During 1934 Du Pont continued intensively to promote the use of transparent sheeting in the baking trade, especially for the wrapping of variety breads and sweet dough products, and as a result of this program we have substantially increased our volume through this outlet. Coincident with our own activity along these lines and the further acceptance of transparent sheeting by bakers as a whole, Sylvania likewise substantially increased their sales to the baking trade.

Regarding Du Pont's sales to the industry, it is signifi-

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cant to note that when combining our direct sales and our agents' and converters' sales to bakers, this market now heads the list of Cellophane users. While the baking trade has been a volume user since the introduction of moistureproof Cellophane, its steadily increasing importance is manifested by the fact that in 1934 it has surpassed the cigarette trade as the major consuming outlet for Cellophane.

The next largest industry gain was in the cigarette field where sales increased between 6% and 7% over the 1933 volume, due to greater cigarette consumption. Manufacturers of the leading brands are using Cellophane, and we are securing practically the full potential offered by this industry. Therefore, any fluctuation in sales would be due to changes in the production of cigarettes as a whole.

Consolidation of 1933 gains in the smoking tobacco field - particularly Liggett & Myers' "Granger" brand - and new releases in "Cellophane" by Larus Bros. (Edgeworth) and various miscellaneous brands manufactured by Brown & Williamson, Axton-Fisher, Liggett & Myers and the American Tobacco Company were responsible for increased volume through this outlet.

Other industries showing substantial gains were miscellaneous food products - particularly dried fruit, tea, coffee and noodles - candy, soap, cosmetics and unclassified uses.

Important gains also have been made by distributors and converters of transparent sheeting who have participated generally in the increases made in the above mentioned consuming industries

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and particularly in the baking industry.

Detailed figures showing Du Pont sales by industries in 1933 vs. 1934 with comparative estimates for Sylvania are given in the following tabulations:

Du Pont's Sales	1934-Lbs.	1933-Lbs.	Increase or Decrease Lbs.
Cigars	2,205,000	2,274,000	- 69,000
Cigarettes	8,119,000	7,615,000	+ 504,000
Other Tobacco Products	892,000	414,000	+ 478,000
Candy	1,896,000	1,823,000	+ 73,000
Baked Goods	6,868,000	4,417,000	+ 2,451,000
Meat	638,000	550,000	+ 88,000
Food Products	1,018,000	799,000	+ 219,000
Textiles & Hosiery	667,000	718,000	- 51,000
Drugs, Perfumes, Soap	746,000	616,000	+ 130,000
Paper Products	740,000	746,000	- 6,000
Miscellaneous Uses	874,000	695,000	+ 179,000
Industrial Uses	495,000	433,000	+ 62,000
Agents & Jobbers	4,056,000	3,275,000	+ 781,000
Converters	8,601,000	7,961,000	+ 640,000
Export	1,004,000	743,000	+ 261,000
Total	38,819,000	33,079,000	+ 5,740,000

Sylvania's Estimated Sales			
Cigars	602,000	400,000	+ 202,000
Candy	700,000	626,000	+ 74,000
Baked Goods	2,723,000	1,377,000	+ 1,346,000
Meat	250,000	340,000	- 90,000
Food Products	210,000	160,000	+ 50,000
Textiles & Hosiery	241,800	230,000	+ 11,800
Drugs, Perfumes, Soap	78,000	50,000	+ 28,000
Paper Products	105,000	90,000	+ 15,000
Miscellaneous Uses	179,200	167,600	+ 11,600
Industrial Uses	40,000	40,000	
Agents & Jobbers	1,251,000	856,000	+ 395,000
Converters	2,695,000	2,174,000	+ 521,000
Export	125,000	100,000	+ 25,000
Total	9,200,000	6,610,600	+ 2,589,400

COMPETITIVE DETAIL

In the foregoing tabulation we show a loss of 69,000 pounds in our cigar volume, and an estimated gain for Sylvania of 202,000 pounds. Considering Sylvania sold approximately 400,000 pounds to this industry in 1933 and the output of cigars in 1934 was about 5% more than in the previous year, it can be caloulated about 20,000 pounds of Sylvania's increase in 1934 was the result of general industry improvement, and 182,000 pounds represent a transition from Du Pont to Sylvania.

Analysis of our records indicates about 80% of this shift in business was the result of difficulties encountered by certain of our large cigar accounts in the matter of quality. Efforts to improve the protective quality of our moistureproof film were followed by serious complaints by customers as to a loss in facility with which sealing could be accomplished and a loss in clarity. It was claimed also that Cellophane in some instances became discolored a short time after application, particularly by manufacturers of Havana cigars, and that the competitive material handled more satisfactorily on wrapping machines. At the same time the competitor has presented a sheeting having desirable sealing and operating qualities, and in doing so seems to have maintained satisfactorily the protective factor. As a result of this program, Sylvania has secured a sizable volume of business formerly enjoyed by us.

To counter Sylvania's better sealing film, we developed an improved sheeting combining the characteristic protective quality of our standard moistureproof sheeting with a proper amount of heat seal, and definite progress has been made in the past 6 months

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as evidenced by the fact we have been able to regain some of the business previously lost to Sylvania.

Before discussing sales to the Baking and Candy industries, it is first necessary to point out the conditions which existed in respect to production of second grade sheeting by Du Pont.

During the first part of 1934 we were producing at a much more satisfactory operating efficiency than we did during 1933. As a consequence, our "seconds" production was much smaller and we were required to restrict the sale of second grade material. In doing so we lost a substantial volume of "seconds" business to competition. During 1933 we sold 3,786,000 pounds of "seconds" as compared to 2,796,000 pounds in 1934, or 990,000 pounds less. In the moistureproof grade alone our "seconds" sales dropped from 2,303,000 pounds to 1,464,000 pounds, a shrinkage of 839,000 pounds.

In the case of the Baking industry, which takes better than 85% of our moistureproof "seconds" volume, and due to the shortage of "seconds" previously referred to, our sales of seconds to this outlet have declined nearly 750,000 pounds. To offset this loss, we have succeeded in replacing 450,000 pounds of this volume with first grade material. The competitor capitalized our shortage of "seconds" and is believed to have secured 300,000 pounds of business formerly enjoyed by us. Also the entree afforded by the competitor's "seconds" supply enabled him to secure additional first grade business estimated at 50,000 pounds with accounts formerly using Du Pont material exclusively, thereby gaining a

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total of 350,000 pounds. Had not Sylvania capitalized our curtailment of "seconds", or had we been able to supply this grade of material, the proportionate increase by both Du Pont and Sylvania in this industry would have been approximately the same.

The balance of the competitor's gain in the baking industry is in a very large part due, we believe, to large increases in the consumption of a relatively few large customers through their wrapping of special breads following its successful introduction by Du Pont customers. The gain is here emphasized due to the large size of the product wrapped.

The leading accounts in this category are Great A. & P. Tea Company, Quality Bakers of America, Freihofer Baking Company, General Baking Company and the Ward Baking Company. The first three of these accounts have favored the competitor as a source of supply because of special concessions given by Sylvania. With General and Ward we enjoy a large portion of their business in addition to that secured by the competitor.

A direct statement by the competitor that a very great portion of his increased tonnage during this year was due to expansion in the Baked Goods industry confirms our estimate of his growth in this field.

Our sales to the Candy industry in 1934 increased 73,000 pounds. In the same period the competitor is credited with a gain of 74,000 pounds. The largest item in our candy sales is our volume with Wm. Wrigley, Jr. Company who purchased 485,000 pounds in 1933 and 362,000 pounds in 1934, a decline of 123,000 pounds.

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This drop is the result of this customer shifting from a 90 day to a 30 day inventory basis and involves no loss to competition. We point this out to show our increase in the candy industry, exclusive of the Wrigley business, was greater than is indicated in our tabulation, which means our gain with other accounts totalled 196,000 pounds. The curtailment of our "seconds" supply was a factor resulting in a loss of business to Sylvania to a small extent, but business taken from them on first grade sheeting has offset this loss. It may be said, therefore, disregarding the Wrigley figures, we have maintained our position in the candy industry in 1934.

In the Meat industry we show a gain of 88,000 pounds, whereas we credit Sylvania with a loss of 90,000 pounds, which is the result of our securing a greater share of the direct business with the "Big Four" packers. However, this is more than offset by gains estimated at about 160,000 pounds by Sylvania converters on printed sheeting, due largely to price and other concessions.

Under Textiles and Hosiery we have a decline of 51,000 pounds in 1934. An analysis of sales to the accounts making up the total textile figures shows a loss of business on men's shirts and underwear of 67,000 pounds. We estimate we have lost 20,000 pounds to Sylvania representing consolidation of their gains in 1933, during which period they made inroads into our business by offering "seconds", which we have refused to sell to the textile industry. In addition part of our loss has been the result of a

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diversion of business from unprinted to printed shirt wrappers, which business is now being secured by converters of transparent sheeting. Also we can account for a loss of at least 25,000 pounds in our business to the producers of acetate sheeting. Sylvania likewise has been affected by these influences. We calculate Sylvania's net gain in the textile industry at 11,800 pounds.

With respect to Paper Products, we show a loss of 6,000 pounds while Sylvania gained 15,000 pounds. As in the candy industry, our sales to one account have adversely affected our showing with the industry as a whole. Our largest customer in the Paper Products field, Kimberly-Clark, purchased 107,000 pounds less in 1934 than they did in 1933. In the interest of economy and because of the highly competitive situation which exists in the facial tissue field, Kimberly-Clark has discontinued "Cellophane" as a standard wrapping on their "Kleenex" unit and now are offering it only when specified and at an additional price. Also we lost 13,000 pounds of business due to the shortage in our supply of second grade material.

Considering indirect sales, i.e., sales through agents and converters, our information as to competitive volume in this category is admittedly limited since we do not have coverage of all the trade sold by them, many of their accounts being of relatively small size. However, information secured through our own agents and converters, together with that obtained from our field force, gives us a reasonable basis for estimating probable volume through these outlets. We know definitely the competitor's jobbers operating in the South and South-

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west have been able to increase their business at the expense of our agents covering these areas because Sylvania has permitted their jobbers to maintain local supplies of "second" grade material Our best estimate of the volume lost by us in the jobber classification is 150,000 pounds.

In the case of the converters we sold the United States Envelope Company 649,400 pounds in 1933 during which time they used our material exclusively. In the early part of this year we were asked by them to give them preference in the purchase of envelopes, but were unable to make a satisfactory reciprocal arrangement, and as a result we lost to the competitor 270,000 pounds of business.

From the foregoing discussion, it will be seen that only in the Cigar and Baking industries and in sales through Agents and Converters has Sylvania made substantial progress.

As pointed out above, our cigar loss was due largely to less satisfactory material than that supplied by the competitor.

In the baking industry the very large gain is due principally to large increases by Sylvania customers (mostly exclusive), and in particular a very few big organizations, resulting in the adoption of transparent cellulose on bread. Only a minor part is business taken from us, and that largely due to shortage of seconds.

Sylvania's increase in their sales to agents and converters, aside from the increased business secured through the sale of "seconds" and our loss of the United States Envelope Company business, has also been due to a substantial increase in new bus-

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ness by the further acceptance of transparent sheeting in the baking industry.

In the above detail, we have shown approximately 915,000 pounds of business has been lost to the competitor and the major part of these losses has been concentrated in four classifications i.e., baked goods, cigars, agents and converters. Keeping in mind the situations outlined in connection with Wrigley and Kimberly-Clark involving a reduction in our 1934 volume of 230,000 pounds, and combining this poundage with our losses to competition previously detailed, it is found the total figure very closely approximates the transition of business which enabled Sylvania to improve their position from 16.7% in 1933 to 19.2% in 1934.

It is our belief, then, the competitor's increase in his proportion of the total business is due to a relatively few special circumstances rather than any general increase of acceptance of the trade in general.

For comparative purposes, on the following page is a table outlining Du Pont's and Sylvania's estimated sales by quarters for 1933 and 1934.

DU PONT & SYLVANIA SALES 1933-1934

PLAIN TRANSPARENT	SYLVANIA	%	DU PONT	%	TOTAL P.T.
1933					
1st Quarter	840,700	23.6	2,720,200	76.4	3,560,900
2nd Quarter	850,200	24.5	2,613,300	75.5	3,463,500
3rd Quarter	882,500	21.6	3,197,200	78.4	4,079,700
4th Quarter	837,200	21.5	3,062,800	78.5	3,900,000
Total	3,410,600	22.7	11,593,500	77.3	15,004,100
1934					
1st Quarter	893,000	20.7	3,417,800	79.3	4,310,800
2nd Quarter	802,000	23.0	2,681,300	77.0	3,483,300
3rd Quarter	937,000	23.7	3,023,400	76.3	3,960,400
4th Quarter	1,134,300	23.9	3,609,100	76.1	4,743,400
Total	3,766,300	22.8	12,731,600	77.2	16,497,900
% Increase over 1933	10.4%		9.8%		10.0%

MOISTUREPROOF					TOTAL M.T.
1933					
1st Quarter	656,000	13.6	4,153,800	86.4	4,809,800
2nd Quarter	820,000	12.3	5,820,100	87.7	6,640,100
3rd Quarter	895,000	12.0	6,589,700	88.0	7,484,700
4th Quarter	829,000	14.4	4,922,000	85.6	5,751,000
Total.....	3,200,000	13.0	21,485,600	87.0	24,685,600
1934					
1st Quarter	1,200,100	17.1	5,809,200	82.9	7,009,300
2nd Quarter	1,516,500	18.4	6,721,100*	81.6	8,237,600
3rd Quarter	1,267,100	15.0	7,166,500*	85.0	8,433,600
4th Quarter	1,450,000	18.5	6,390,400	81.5	7,840,400
Total.....	5,433,700	17.2	26,087,200	82.8	31,520,900
% Increase over 1933	69.8%		21.4%		27.7%

TOTAL					GRAND TOTAL
1933					
1st Quarter	1,496,700	17.9	6,874,000	82.1	8,370,700
2nd Quarter	1,670,200	16.5	8,433,400	83.5	10,103,600
3rd Quarter	1,777,500	15.4	9,786,900	84.6	11,564,400
4th Quarter	1,666,200	17.3	7,984,800	82.7	9,651,000
Total.....	6,610,600	16.7	33,079,100	83.3	39,689,700
1934					
1st Quarter	2,093,100	18.5	9,227,000	81.5	11,320,100
2nd Quarter	2,318,500	19.8	9,402,400	80.2	11,720,900
3rd Quarter	2,204,100	17.8	10,189,900	82.2	12,394,000
4th Quarter	2,584,300	20.5	9,999,500	79.5	12,583,800
Total.....	9,200,000	19.2	38,818,800	80.8	48,018,800
% Increase over 1933	39.2%		17.3%		21.0%

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* - Mill Rolls Reduced

ACTIVITY OF CELLULOSE ACETATE SHEETING PRODUCERS

The foregoing discussion has been devoted to the competitive situation with respect to the Sylvania Industrial Corporation only, which is by far the most important competitive producer. In addition, it is necessary to consider the competition from the cellulose acetate sheeting producers - the Eastman Company, manufacturers of Kodapak, and the Celluloid Corporation, manufacturers of Protectoid - who have become increasingly active during the past year. For the reason a good part of their manufacture is consumed in industries where our standard product is not particularly adaptable, such as for use in envelopes and cartons as windows, photographic work, liners in tops of bottle closures, in the electrical field and the fact we do not have complete coverage of these industries, we do not have complete data of the volume of business in total.

From our records we can account for the sale of 486,000 pounds in 1934 of which 281,000 pounds was secured by the Celluloid Corporation and 205,000 pounds by Eastman, but unquestionably their business is substantially in excess of this figure.

In the wrapping field the greatest acceptance of acetate sheetings has been in the meat, textile and paper products industries. In the meat industry the use of acetate is limited to a certain few accounts whose products or method of distribution makes the use of acetate desirable because of its non-wrinkling qualities. We account for a total volume in this field of 115,000 pounds, which

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represents both the direct and printed volume of this business. Consumption of acetate for wrapping textiles of all types is estimated at 73,000 pounds and its use on paper products is estimated at 38,000 pounds. In these last two industries the acetate sheeting is used principally because of the non-shrinking quality of this type of film. Use of acetate sheeting in other industries has not been on as extensive a scale, according to our records, and its consumption does not represent a substantial quantity in any one industry, being confined mainly to a few accounts in each classification where acceptance has been secured because of its adaptability to some particular problem of the accounts in question or because of the opinion of its users that the clarity of acetate sheeting outweighs other advantages characteristic of the viscose type of material produced by Sylvania and ourselves. The Candy Industry, where consumption of acetate is estimated at 23,000 pounds, is the only other major outlet now using viscose material in quantity where known volume of acetate is in excess of 20,000 pounds per annum.

The distribution of acetate sheeting is accomplished to a very large extent through agents, jobbers, and converters (envelope and window box manufacturers as well as printers) and while it is not possible to account for the total through these sources, our records do cover an estimated business of approximately 130,000 pounds.

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PLIOFILM

Several months ago the Goodyear Tire & Rubber Company made its debut in the transparent wrapping material field when they introduced a new film under the name of Pliofilm. The new product differs from the present transparent sheetings in that it is not derived from cellulose, but is produced from rubber.

The claims made for Pliofilm are that moisture-proofness is a property of the film itself, that it is not greatly affected by changes of humidity, that it has greater tear-resistance and elasticity than the cellulose type of sheet, that due to its lighter weight it gives 20% more area per pound than the cellulose type, and that a minimum amount of heat is required to seal it to itself.

The price of their so-called #100 material, which gauges .0010 in thickness and which gives a yield of 25,000 square inches per pound, is quoted at 65¢ per pound in 500 pound quantities. In gauge, this material is the same as our #300 moistureproof Cellophane, which gives a yield of 19,500 square inches per pound and sells at 48¢ per pound in 500 pound lots. Although on a poundage basis the price of Pliofilm is 31% higher than Cellophane, on a yield per pound basis the prices are almost identical.

Goodyear is soliciting the trade, but as yet not sufficient time has elapsed to determine the trade's acceptance to the new sheeting.

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E. I. du Pont de Nemours & Company

Rayon Department

ANNUAL COMPETITIVE REPORT

1936

"CELLOPHANE" DIVISION

Submitted by:

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SALES RECORD SECTION
February 9, 1937

E. I. DU PONT DE NEMOURS & COMPANY, INC.

"CELLOPHANE" DIVISION

ANNUAL COMPETITIVE REPORT

COMPETITIVE SITUATION SUMMARIZED

Combined volume of the two domestic producers of viscose transparent cellulose sheeting for 1936, which includes the sales of the Sylvania Industrial Corporation and those of du Pont are estimated to have totalled 69,453,200 pounds. This represents an increase in combined volume of 14,488,400 pounds or 26.4% over the 1935 figures of 54,964,800 pounds.

It is estimated Sylvania sold 14,536,000 pounds during 1936, and du Pont sold 54,917,200 pounds, proportionately 20.9% and 79.1% of the combined volume. This compares with an estimated competitive volume of 11,537,400 pounds and du Pont sales of 43,427,400 pounds in 1935, or in a ratio of 21.0% for Sylvania and 79.0% for ourselves.

Based on the foregoing it appears there has been no essential change as between the competitive positions of the two companies in 1936 compared to the previous year. Sylvania's sales are estimated to have increased 26.0% over 1935 and du Pont's 26.5%. In terms of poundage Sylvania's increase was 2,998,600 pounds, our own - 11,489,800 pounds.

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From a strictly competitive standpoint as far as field operations are concerned, however, Sylvania was able to show a slight improvement in position. This situation results from the fact 1,083,000 pounds of our 1936 business was secured from British Cellophane, Ltd., representing sheeting supplied our English associates to enable them to meet trade requirements. The volume so secured by us was essentially non-competitive as far as its effect on our normal domestic and export markets. For this reason, comparisons and analysis in the subsequent sections of this report are made with British shipments deducted.

To cover the figures discussed and to show comparisons with the deductions made, we tabulate the following summaries:

COMPARISON OF TOTAL VOLUMES

	Plain Sheeting		Moistureproof Sheeting		T O T A L	
(a) 1935	Pounds	%	Pounds	%	Pounds	%
Du Pont	13,480,500	77.0	29,946,900	79.9	43,427,400	79.0
Sylvania	4,020,000	23.0	7,517,400	20.1	11,537,400	21.0
	17,500,500	100.0	37,464,300	100.0	54,964,800	100.0
(b) 1936						
Du Pont	16,367,600	78.2	38,549,600	79.4	54,917,200	79.1
Sylvania	4,563,000	21.8	9,973,000	20.6	14,536,000	20.9
	20,930,600	100.0	48,522,600	100.0	69,453,200	100.0

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COMPARISON OF NET VOLUMES - 1936*

(SALES TO BRITISH CELLOPHANE BY DU PONT DEDUCTED)

	Plain Sheeting Pounds	%	Moistureproof Sheeting Pounds	%	T O T A L Pounds	%
(c) 1936						
Du Pont	16,116,600	77.9	37,717,600	79.1	53,834,200	78.7
Sylvania	4,563,000	22.1	9,973,000	20.9	14,536,000	21.3
	20,679,600	100.0	47,690,600	100.0	68,370,200	100.0

* No sales to British Cellophane in 1935.

Comparing tables (a) and (c) above it is evident the competitor was able to improve his position in 1936, his percentage of the total business rising from a flat 21.0% in 1935 to 21.3% in 1936. Calculating the transition in business indicated by these figures, Sylvania secured a net competitive gain of approximately 180,000 pounds. This gain in position resulted solely from Sylvania's improvement in the moistureproof classification, in which the competitor was able to extend his percentage of total business from 20.1% in 1935 to 20.9% in 1936, an approximate shift of business in the competitor's favor of 390,000 pounds. In the plain sheeting classification, however, du Pont sales made offsetting competitive gains to the extent of an apparent 210,000 pounds.

COMPARATIVE SALES BY INDUSTRY

To provide a basis for analyzing the causes of the shifts in business which occurred during 1936, we have tabulated on the following page detailed comparative statistics showing

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Du Pont and estimated competitive sales by industry for 1935 and 1936. Since the use of plain sheeting and moistureproof sheeting is to a large degree mutually exclusive in a majority of our consuming outlets, our tabulation considers only total sales in each industry group, and we have identified the types of stock in question by comment in our subsequent analysis.

DU PONT SALES

Pounds

Industry	1936 Sales	%*	1935 Sales	%*	Change
Cigarettes	10,299,000	92.0	8,887,000	98.9	+1,412,000
Cigars	2,004,000	60.3	1,826,000	59.8	+ 178,000
Other Tobacco	1,360,000	95.4	1,116,000	95.2	+ 244,000
Candy	2,791,000	76.2	2,350,000	75.6	+ 441,000
Baked Goods	11,512,000	72.2	8,204,000	70.2	+3,308,000
Meat	502,000	77.0	437,000	74.6	+ 65,000
Other Food Prods.	1,959,000	87.5	1,373,000	84.5	+ 586,000
Textiles & Hosiery	800,000	77.7	558,000	56.7	+ 242,000
Perf., Soap, Drugs	871,000	95.8	822,000	94.3	+ 49,000
Paper Products	726,000	87.4	706,000	88.4	+ 20,000
Miscellaneous	2,052,000	82.3	1,643,000	82.4	+ 409,000
Agents	6,647,000	77.5	4,975,000	76.8	+1,672,000
Converters	11,124,000	76.1	9,163,000	75.0	+1,961,000
Export	1,187,000	81.5	1,367,000	88.7	- 180,000
	53,834,000	78.7	43,427,000	79.0	+10,407,000
British Cellophane, Limited	1,083,000	____	-	____	+1,083,000
GRAND TOTAL.....	54,917,000	____	43,427,000	____	+11,490,000

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SYLVANIA SALES

Pounds

Industry	1936 Sales	%*	1935 Sales	%*		Change
Cigarettes	900,000	6.0	100,000	1.1	↓	800,000
Cigars	1,318,000	39.7	1,230,000	40.2	↓	88,000
Other Tobacco	65,000	4.6	56,000	4.8	↓	9,000
Candy	870,000	23.8	760,000	24.4	↓	110,000
Baked Goods	4,430,000	27.8	3.484,000	29.8	↓	946,000
Meat	150,000	23.0	149,000	25.4	↓	1,000
Other Food Prods.	280,000	12.5	251,000	15.5	↓	29,000
Textiles & Hosiery	230,000	22.3	278,000	33.3	-	48,000
Perf., Soap & Drugs	38,000	4.2	50,000	5.7	-	12,000
Paper Products	105,000	12.6	93,000	11.6	↓	12,000
Miscellaneous	440,000	17.7	351,400	17.6	↓	88,600
Agents	1,930,000	22.5	1,500,000	23.2	↓	430,000
Converters	3,500,000	23.9	3,060,000	25.0	↓	440,000
Export	270,000	18.2	175,000	11.3	↓	95,000
	14,526,000	21.3	11,537,400	21.0		$2,988,600

*Represents percentage of total sales secured in each classification.

Considering the changes in relative standing in each industry, our tabulation shows the most significant shifts in business in respect to losses to have occurred in the cigarette and export classifications, and in respect to our gains, changes in the baked goods, unclassified food, textiles, agents and converter classifications were most important.

INDUSTRY DISCUSSION

Cigarettes

By far our most serious competitive loss in 1936, and the one which had the greatest bearing on Sylvania's improvement in moistureproof sheeting sales was the shift of a substantial

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share of the R. J. Reynolds Tobacco Company's business to the competitor. An exact calculation of the volume secured from this customer by the competitor is not possible, but close analysis of the customer's purchases from us, and published information in respect to Reynolds indicates Sylvania secured approximately 900,000 pounds from this single source in 1936.

Difficulties encountered with our sheeting, particularly brittleness, which developed about the middle of 1935, afforded Sylvania an entree. Later, mechanical problems in the application of Cellophane and subsequent claims of superior moistureproof qualities of competitive stock were reported as additional considerations. Since then the customer has taken the attitude more than one source of supply is desirable, and we have been unable to displace the competitor. Our sales to Reynolds declined from 2,670,000 pounds in 1935 to 2,395,000 pounds in 1936.

Despite the Reynolds loss, however, we were able to secure sales increases in the industry amounting to 15.9% which exceeds the 13.8% increase in cigarette consumption. This gain was made possible principally through the development of new business.

Adoption of the double wrap by Lorillard for "Old Golds" added 490,000 pounds to our 1936 total; Axton Fisher's adoption for "Twenty Grand", a 10¢ unit, gave us approximately

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250,000 pounds of new business; and adoption of Cellophane for "Avalon's", "Viceroy", and several minor brands by Brown & Williamson added in excess of 200,000 pounds--thus more than offsetting the volume of competitive loss.

Cigars

In the cigar industry, which for several years past has been and still remains a source of constant loss through the continuation of quality problems, we were able to show an apparent fractional improvement. Official figures on the output of cigars show consumption of this product to have increased 8.8%. Sales of Cellophane direct to cigar manufacturers increased from 1,826,000 pounds in 1935 to 2,004,000 pounds in 1936, a gain of 9.7%. Sylvania's sales direct to cigar manufacturers are estimated to have totalled 1,318,000 pounds in 1936 as compared to a 1935 volume of 1,230,000 pounds, an increase of 7.2%.

In terms of the percentage of cigars wrapped, however, Sylvania actually bettered its apparent performance. The reason for this seeming contradiction is that Sylvania's 1936 poundage was reduced approximately 100,000 pounds through the discontinuance of double wraps by the Porto Rican American Tobacco Company. If this figure were deducted from Sylvania's 1935 total, it may be calculated the competitor's rate of gain exceeded our own. Indeed, analysis of individual accounts indicates our losses to Sylvania exceeded gains by an amount approximating 50,000 pounds. Had it not been for gains resulting from development work with a limited number of non-competitive users our net added loss in 1936

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probably would have exceeded 150,000 pounds. Most important of the offsetting factors was Lorillard's marketing of the "Van Bibber" unit of small cigars late in 1935 which added approximately 90,000 pounds to our 1936 business.

Other Tobacco Products

Improvement both in du Pont's volume and standing in this industry results principally from the development of new business, industry growth being an almost negligible factor. No further inroads were made by the competitor, his sole business continuing to be the Lorillard "Briggs" unit which was lost by us early in 1935 as a result of difficulties with our material in mechanical application.

Candy

In the candy industry, a continuation of the promotion of Cellophane for wrapping individual pieces so actively followed in 1935 together with gains secured in the fancy boxed goods division enabled us to secure not only a substantial volume increase, but a slightly improved competitive position as compared to 1935.

Baked Goods

According to our estimates, there has been a transition in business to du Pont during 1936 in the baking industry of approximately 320,000 pounds. A competitive gain of 260,000 pounds with members of Quality Bakers, Inc., an association from whom Sylvania had previously secured the major share of the business, and an increase of 95,000 pounds with the Wagner Baking Corporation (formerly Pic Bakeries, Inc.) represent our major competitive gains. Compared to these volumes, Sylvania has made only

relatively minor inroads in our business, no single one of which our records indicate exceeded 20,000 pounds.

Meat

The outstanding competitive situation in the meat industry during 1936 was the transfer of the larger share of Swift and Company's printed business from du Pont printers to the Daniels Manufacturing Company, competitive printers. This loss is estimated to have totaled 250,000 pounds. Another competitive loss of importance was the transfer of the Great A. & P. Tea Company's printed business, representing 75,000 pounds to Daniels early in 1936. These losses, of course, did not offset our volume of direct business, and while our inability to supply second grade sheeting adversely affected our direct sales during several months of 1936 and allowed some shift of business to the competitor during the period of our shortage, we were able to close the year with an increase of 14.9% in our direct sales and a slight gain in competitive standing.

Food Products

Development of additional new business by du Pont was mainly responsible for our gain in position in the food industries. Actual competitive changes were limited to a number of smaller accounts with a balance in our favor estimated at approximately 60,000 pounds. A serious blow to Sylvania's relative standing also was the discontinuance of transparent wrapping by the Great A. & P. Tea Company on their "Sparkle" gelatin package. It is estimated this situation reduced Sylvania's volume in 1936 by 60,000 to 70,000 pounds.

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Textiles & Hosiery

A marked gain in du Pont sales arising both from the elimination of competitive sheeting with one major account, Cannon Mills, together with unusual expansion of volume by the same account gave us 90,000 pounds of added business. This volume together with substantial but less sensational increases with a number of other textile and hosiery concerns enabled us to establish the best relative standing we have had in the textile industry for a period of four years.

Other Industries

In the remaining industry groups, there was no essential transition in business although internal situations in the perfume and soap group resulting in reduced volume with two leading accounts cut our total sales by approximately 100,000 pounds. Discontinuance of Cellophane for wrapping facial tissue also reduced our volume in the paper products division by approximately 40,000 pounds. These losses, while in no sense competitive, did tend to offset gains made in other directions and thus permit a more favorable standing for the competitor in respect to his relative position.

Agents

Based on available information, it is conceded the competitor was able to secure a percentage increase in his sales through his recognized agents nearly equal to our own. However, our promotion of Cellophane with smaller jobbers enabled us to increase our sales through this source from 68,000 pounds in 1935 to 299,000 pounds in 1936.

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Converters

As previously mentioned in our discussion of the meat industry, Sylvania secured a substantial volume of business through the transfer of the Swift business in the second quarter of 1936 to the Daniels Manufacturing Company, competitive printer. Despite this loss, however, we were able to improve our competitive position. Three principal factors brought this about:

(1) Sales of Cellophane bags and envelopes increased approximately 20% as against a gain in the combined volume of all producers (available statistics cover 95% of bag and envelope sales) of 9.2%.

(2) Du Pont printers benefited by our promotion particularly in the textile field in which competitive printers have not been particularly active, and

(3) Several large meat packers switched a considerable portion of the requirements from plain to printed stock and despite the Swift loss our volume secured in the meat industry through printers increased substantially.

Export

Sylvania's gain in export sales is attributable to two principal factors. First, the Alhambra Cigar Company, a Philippine account, placed a volume of approximately 50,000

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pounds with the competitor as a result of mold developing on cigars wrapped in our sheeting. Also Sylvania was successful in displacing a volume of Japanese film in Cuba.

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From the foregoing detail in which we have described the principal causes of improvement in the competitor's relative standing, it is evident the situation in respect to the Reynolds Tobacco Company, a condition which originated as a quality problem, has been the dominating factor. Du Pont's competitive position in a majority of its consuming industries has been well maintained and in a number of cases materially increased.

On the following page, we have provided a tabulation of du Pont's and Sylvania's estimated sales by quarters for 1935 and 1936.

DU PONT AND SYLVANIA SALES - 1935-1936

PLAIN TRANSPARENT	SYLVANIA	%	DU PONT	%	TOTAL P. T.
1935					
1st Quarter	1,014,000	23.8	3,249,000	76.2	4,263,000
2nd "	936,000	25.1	2,797,900	74.9	3,733,900
3rd "	990,000	23.0	3,312,800	77.0	4.302,800
4th "	1,080,000	20.8	4,120,800	79.2	5,200,800
Total.....	4,020,000	23.0	13,480,500	77.0	17,500,500
1936					
1st Quarter	1,013,000	21.4	3,728,600	78.6	4,741,600
2nd "	990,000	23.8	3,168,000	76.2	4,158,000
3rd "	1,210,000	23.0	4,040,000	77.0	5,250,000
4th "	1,350,000	19.9	5,431,000	80.1	6,781,000
Total.....	4,563,000	21.8	16,367,600	78.2	20,930,600
% Inc. over 1935	13.5%		21.4%		19.6%

MOISTUREPROOF					
1935					
1st Quarter	1,261,500	15.6	6,829,300	84.4	8,090,800
2nd "	1,860,100	19.3	7,777,600	80.7	9,637,700
3rd "	2,105,100	21.1	7,873,000	78.9	9,978,100
4th "	2,290,700	23.5	7,467,000	76.5	9,757,700
Total.....	7,517,400	20.1	29,946,900	79.9	37,464,300
1936					
1st Quarter	1,988,800	20.3	7,800,900	79.7	9,789,700
2nd "	2,685,000	22.3	9,365,500	77.7	12,050,500
3rd "	2,508,100	19.0	10,682,700	81.0	13,190,800
4th "	2,791,100	20.7	10,700,500	79.3	13,491,600
Total.....	9,973,000	20.6	38,549,600	79.4	48,522,600
% Inc. over 1935	32.7%		28.7%		29.5%

TOTAL					
1935					
1st Quarter	2,275,500	18.4	10,078,300	81.6	12,353,800
2nd "	2,796,100	20.9	10,575,500	79.1	13,371,600
3rd "	3,095,100	21.7	11,185,800	78.3	14,280,900
4th "	3,370,700	22.5	11,587,800	77.5	14,958,500
Total.....	11,537,400	21.0	43,427,400	79.0	54,964,800
1936					
1st Quarter	3,001,800	20.7	11,529,500	79.3	14,531,300
2nd "	3,675,000	22.7	12,533,500	77.3	16,208,500
3rd "	3,718,100	20.2	14,722,700	79.8	18,440,800
4th "	4,141,100	20.4	16,131,500	79.6	20,272,600
Total.....	14,536,000	20.9	54,917,200	79.1	69,453,200
% Inc. over 1935	26.0%		26.5%		26.4%

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ACTIVITY OF OTHER TRANSPARENT SHEETING PRODUCERS

According to the best information available to us, the consumption of viscose type sheeting as produced by Sylvania and du Pont accounts for approximately 97% of the total for all transparent sheeting produced or imported into the United States. Because of the relatively small volume of other sheetings used, and the fact a considerable portion of it is sold for uses to which Cellophane is not particularly adaptable and in industries in which our coverage is limited, it is extremely difficult to estimate and identify the volumes of the respective producers.

Manufacturers of acetate sheeting, the Eastman Company and the Celluloid Corporation, sell only a portion of their volume for wrapping purposes. A large part of the volume of these two concerns is sold for use as windows for cartons and envelopes, laminations, liners in tops of bottle closures and for insulation of electric wires.

From our records, we can account for approximately 1,200,000 pounds of acetate consumption which is divided in about a 60-40 ratio between Eastman and Celluloid. This compares with a known volume of 730,000 pounds in 1935. While the apparent gain in acetate consumption appears substantial on a percentage basis, it is believed actual improvement has not been at an unusual rate. Coverage of paper jobbers, started by us in 1935, through whom Eastman distributes exclusively, has given us more complete information than possessed heretofore, and this more

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than any sizeable expansion in consumption has increased the total of known poundage for 1936.

Pliofilm, a rubber compound introduced by the Goodyear Tire and Rubber Company two years ago, has yet to make any appreciable progress in the packaging field. Present use of this product is confined almost exclusively to industrial uses, in the form of bag and container liners, garment covers, and insulating material. The largest single known use of Pliofilm has been in the manufacture of inexpensive light-weight raincoats, for which it is estimated 330,000 pounds were used in 1936.

Official records of the Department of Commerce show that a total of 196,000 pounds of Japanese (viscose type) film was imported during 1936. This compares with a total of 267,000 pounds in 1935. Although the Japanese producers established agencies in this country in 1935, the inferior quality of their sheeting has turned users back to du Pont and Sylvania. A considerable portion of Japanese imports was sold in shredded form for fancy packing of fresh fruits and vegetables, such material comparing with reject stock incidental to our own production.

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GOVT EXHIBIT NO. 445
Civil Action 1216

CELLOPHANE DIVISION COMPETITIVE REPORT

Year - 1947

CELLOPHANE

VI. COST FILM

Moistureproof Sales Only - (000's Omitted)
Based on Royalty Payments

	Du Pont		Sylvania		Total Pounds
	Pounds	%	Pounds	%	
4th Quarter 1947	30,306	78.2	8,453	21.8	38,759
Year 1947	108,986	77.4	31,835	22.6	140,821
Year 1946	90,216	75.5	29,311	24.5	119,527
Year 1945	81,688	78.0	23,292	22.0	104,980

Total Sales Including PT and Exports
(Sylvania Estimated)

4th Quarter 1947	35,580	78.0	10,300	22.0	45,880
Year 1947	131,974	77.0	38,500	23.0	170,474
Year 1946	106,376	75.0	35,000	25.0	141,376
Year 1945	95,600	77.0	28,500	23.0	124,100

Sales continue to depend entirely on volume of production. Sylvania's increase in 1947 was only 10% over 1946, as compared to 24% for Du Pont.

Export Viscose Films

U.S.A. Exports (000's Omitted)

	Du Pont		Sylvania (Est.)		Total Pounds
	Pounds	%	Pounds	%	
Year 1947	5,153	83.0	1,050	17.0	6,203
Year 1946	4,502	88.0	600	12.0	5,102
Year 1945	3,225	90.0	350	10.0	3,575

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Exports to Other Countries

The present annual export volume of foreign manufacturers is estimated as follows:

Country	Annual Pounds (000's Omitted)
Czechoslovakia	250
Canada	300
Britain	15,840
France	2,000
Belgium	2,000
Sweden	250
Switzerland	250
Brazil	500
	21,390

This is 14% less than the estimated exports of foreign manufacturers pre-war. We have no information regarding resumption of pre-war operations in either Germany or Japan. The majority of film produced abroad is of the non-moistureproof type.

In spite of the increased export volume of both U.S.A. and foreign countries, demand for film in foreign markets is still greater than supply.

British prices of non-moistureproof sheets are somewhat below those of Du Pont, but on non-moistureproof rolls their prices are about equal with ours. On moistureproof sheets their prices are about equal with Du Pont, while on moistureproof rolls their prices are about 20% higher. Prices of other foreign producers are higher than those of either British or American manufacturers.

The latest estimate from "Ducilo" Argentina is that their new plant should be producing PT about September 1st and MST a few months

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later.

The new film plant in Concepcion, Chile, Proquimicos Ltda. is reported to be advertising their product as the start of a new Chilean industry. Capacity is very small.

ACETATE FILM

The production of thin gauge cellulose acetate sheeting (under .003 gauge) as obtained from the Department of Commerce reports for the years 1946 and 1947 compares as follows:

	Total Industry	Du Pont Total	% Du Pont
Year 1946	7,650,000	1,668,000	22%
1st months 1947	4,252,000	819,000	19%
2nd 6 months 1947	3,000,000	749,000	25%
Year 1947	7,252,000	1,568,000	22%

As previously reported, a free market has existed for acetate sheeting during the last six months of 1947 and the total sales volume is off 1,252,000 pounds, or 29% from the first half of the year. Du Pont's position in the total industry improved, as indicated, from 19% the first half to 25% the second half of 1947. About 25% of the acetate sheeting produced goes into packaging uses competitive with Cellophane.

Celanese have had a solvent recovery explosion in their Newark, New Jersey plant which is expected to keep them out of production for at least a month.

NON-CELLULOSIC FILMS

Pliofilm

The estimated Goodyear production of Pliofilm for 1946 and 1947 is as follows:

	Annual Volume
1946	1,800,000 Lbs.
1947	2,500,000 Lbs.

Goodyear continues active in promoting food packaging in specialty directions, but with little success. Converters (who buy about 80% of the above volume) report considerable operating difficulties due to non-uniformity in odor, color, clarity and moisture-proofness.

"Cry-O-Vac" - Dewey & Almy Chemical Co., Cambridge, Mass.

This film was made of latex prior to the war and was used for packaging such frozen foods as poultry, meats and fish. Because of the scarcity of rubber, it was discontinued during the war. Production has recently been resumed, but synthetic rubber is being used. The packaging "process" involves placing the food in a "Cry-O-Vac" bag, vacuumizing the package, sealing and shrinking the bag by heat to produce a skin around the product.

While only one extrusion machine is in operation at present, another is reported under construction. Adoptions have been reported by several large poultry packers. At present, we have no information as to volume of production or prices.

Aluminum Foil

Reynolds Metals and Alcoa continue to be active in advertising and field promotion of foil packages for candy gum, tobacco, cheese, frozen foods, hams, dehydrated soup, ice cream, potato chips, butter and other foods.

Polythene

The Plastics Department estimates the 1947 polythene film pro-

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duction (.002 to .004 gauge) to be 3,200,000 pounds. The Visking Corporation's share of this production is estimated as 2,280,000 pounds.

Fabric replacement still gets the major share of this production. However, through Traver Corp., printed bags of this film are being sold for frozen whole turkeys, plain bags for bag-in-box 60-lb. frozen fresh cream, bulk shortening, and 30-lb. institutional bag-in-box packs of frozen fruits. Frozen food locker bags, household utility bags and tubing are substantial outlets.

Both Du Pont and Bakelite Corporation have recently reduced polyethylene prices 4¢ to 7¢ per pound. Film prices are ranging from $1.00 to $1.20 per pound, depending upon quantity.

It may be well to repeat our report of a year ago, that there is a good possibility that Goodyear can convert Pliofilm equipment to solvent cast polythene if deemed desirable.

Vinyl Films

An unplasticized co-polymer of approximately 50% vinyl and 50% synthetic rubber of the Buna-N type produced by Hycar, a subsidiary of Goodrich Rubber Company, and made into tubing by Visking Corporation is being used in pouch form for packaging margarine within a paperboard carton. Coloring of the margarine is done by squeezing the color out of a capsule within the pouch.

This is the first noteworthy use of a vinyl film in food packaging. The sales volume for 1947 is estimated at 600,000 pounds, but the present rate is 100,000 pounds monthly.

Other Films

Nothing new to report regarding Dow Chemical Company Saran #517 or "Reynolon", product of Reynolds Research Corporation, Gary, Indiana.

GOV'T EXHIBIT NO. 455
Civil Action 1216

DUPONT CELLOPHANE

DU PONT CELLOPHANE COMPANY, INC.

5 PARK AVENUE
NEW YORK CITY

April 21st., 1930.

MR. B. M. MAY, VICE PRESIDENT.

CELLOPHANE VOLUME

In connection with the consideration of further plant expansion, the following may be of interest as having some bearing on the need for greater productive capacity.

At the present moment, we have an estimated annual production of 11,400,000 pounds - this being the capacity of the eight-machine plant at Buffalo plus the first complete eight-machine unit at Old Hickory. With the completion, next November, of the second eight-machine unit at Old Hickory, our rated annual capacity will be 18,000,000 pounds.

During the last five months of 1929, from August 1st until the end of the year, our growth was at the rate of 108% over the same five months of the year before. During the first three months of 1930, our growth was at the rate of 112% over the same quarter of 1929. We have therefore maintained a rate of growth for the past eight months for that entire period, of approximately 110%.

This is higher than the percentage rate of growth during the last two years, and while we have figured that we must expect this curve of percentage increase to flatten out, up to this time, that has not been the case, but the percentage of growth has increased as the price has gone downward.

If we continue this present rate of growth throughout the balance of 1930, our sales will tax our ability to produce the tonnage which will be in excess of 12,000,000 pounds, to accomplish this.

In providing for the fourth Cellophane plant of eight machines now suggested for Richmond installation, we are providing only sufficient capacity to continue this present rate of growth thru next year. Heretofore, we have been accustomed to build our additions so that the first units came into production in the Fall because it has taken an

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average of a year's time to produce an eight-machine plant after construction was determined upon.

As the peak of the business comes in the Fall months, from September forward, we have been obliged to rush the completion of installation of these machines in order to take care of that Fall peak and that condition is the same at this time as regards the second plant at Old Hickory which we are now doing everything possible to get into production as early as possible this Fall.

Regarding this Fall peak, the record for the past several years shows that approximately 60% of the annual tonnage is in the last six calendar months and but 40% in the first six calendar months of any calendar year.

We have found, also, during the last two years that we can stimulate this volume of Cellophane sales very materially with price reductions and each time we have reduced the level of prices, we have materially increased the level of volume. We believe that this is still possible to a very considerable extent inasmuch as there are markets of tremendous volume of low-priced commodities requiring a fairly large unit of Cellophane per unit of sale, that we hope to reach, and we believe accordingly, that if we found ourselves with potential volume in excess of our current sales, we might materially increase the volume when such a condition existed, by further price reductions.

At the moment, our trend in sales is very largely towards Moistureproof Cellophane and at the moment, our current orders for Cellophane are approximately one-half of the total with current orders on hand. We may very easily exceed this proportion of Moistureproof in our total volume.

There are a number of items representing important volume that are, at the moment considering Cellophane as a wrapping in which to market their material. In most of these cases, Moistureproof material will be required and in view of our position as regards our patent on this type of production, and at present, the non-competitive features connected with it, we feel it is important to have ample volume of production to take care of this potential sale.

One of the principal items is the marketing of frozen fresh meats by the big packers. After a test covering a lengthy period, they have determined that these fresh meats frozen by the Birdseye quick-freezing process, will be marketed in Moistureproof Cellophane, and they are going ahead rapidly with a program of marketing a large quantity of their fresh meat in this fashion. This process is controlled by the General Foods Corp'n who, for the past several weeks,

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have been running an experiment of the marketing of frozen foodstuffs of all kinds including meats, fish, berries, fresh vegetables, etc., in their frozen display cases in a number of the stores in Springfield, Mass.

Our information from them is that this demonstration has been completely successful and they have learned important details of what will be necessary to distribute their products accordingly.

One claim they make is that frozen meat, to the extent of 150 pounds a day can be easily marketed by a small grocery unit with a frozen case department, and each unit is in such shape that it can be put in all the chain stores, very easily.

They claim to foresee the installation of 20,000 of these units during the next year. If this represents all the frozen fresh meat to be sold - which it probably does not - such an installation would require 20,000 pounds a day of Moistureproof Cellophane, inasmuch as the packer utilizes approximately one pound of this material for 150 pounds of meat when packaged in these individual units.

This item alone, would require the output of an eight-machine plant and would require in excess of six million pounds a year to take care of that volume.

In the Cigar industry, we are now selling the Dobeckmun Co., alone, for the manufacture of cigar tubes, 6,500 to 7,000 pounds of Moistureproof a day, and they have asked us to increase these shipments to 9,000 pounds a day, effective at this time, but which we find it difficult to do on account of the lack of productive capacity.

We don't believe that they have half of the cigar industry using their material as yet because many of the cigars selling in the biggest volume, are not yet in Cellophane, and a number of the bigger cigar manufacturers are not using the Dobeckmun tubes but are wrapping their material in their own way.

If we continue to progress in the cigar industry as it seems we should and will, we can visualize 20,000 pounds a day of Moistureproof for cigars very shortly. That, in turn, will take the capacity of an eight-machine unit.

M-78

To the Baking industry, we have been, during the last few months, selling approximately 95,000 pounds a month, and we have a small percentage of the potential of this industry - particularly in the wholesale cake baking field - and it is not beyond reason to believe that we have only about 20% of the possible volume in this industry, or that this third industry may require 6,000,000 pounds annually if we get any considerable portion of the baked goods wrapped in Moistureproof Cellophane.

In the last day or two, we have learned that the National Biscuit Co., and the Loose-Wiles Co. have each placed an order for a wrapping machine to use Cellophane for the wrapping of crackers. If successful in this, and we are able to hold our position in that line, it will add a tremendous volume to the baked goods business already established.

Fruit cakes, tea biscuits and baked specialties in large variety of important volume, still offer the possibility of being wrapped in Cellophane. We have the hope, also, of wrapping the present sliced loaf of bread that is being sold in the cities, to a certain extent at least, in this material.

Moistureproof Cellophane for such purposes has definite economic advantages in eliminating stale returns, flattening out the peak of manufacture, reducing the number of deliveries required and minimizing the investment in cooling devices, trucks, display cases, etc.

Recently, the Gillette Co. have begun wrapping of razor blades in Moistureproof Cellophane and have installed a battery of machines for this purpose. This is new business recently, and will require a considerable volume. Undoubtedly, it will influence competitive articles and similar specialties into the same kind of wrapping.

With an improvement in the adhering qualities of the coating of our present Moistureproof Cellophane, itself, we have the potential of wrapping butter and cheese in it.

We have a large potential market with the development of the right kind of automatic or semi-automatic machinery for the packing of a large quantity of fruits on the Coast, such as prunes, dried apricots, dried peaches, etc. in pound bricks. This requires mechanical development similar to that made for other industries, and we believe it will ultimately develop.

M-78

At the moment, we have the Wrigley Co. of Chicago interested in the wrapping of their gum in this material, and while we have not yet sold them, we believe we ultimately will.

The manufacturers of Life Savers, after two or three attempts, have again voluntarily indicated to us their further interest in the use of this material.

The number of eye-attracting, small candy packages increases regularly.

We have a big potential in the marketing of fresh frozen fish by this Birdseye Process, to which Moistureproof Cellophane lends itself most advantageously.

At the moment, we are experimenting with Proctor & Gamble on the wrapping of their "Camay" soap in Cellophane, which will probably be the beginning in a big way, of soap wrapping in this material in America.

A group of farm cooperatives on the West Coast have begun to pack selected eggs in Moistureproof Cellophane and have found that with a certain preliminary treatment, they can deliver an egg that is to all intents, a perfectly fresh egg quite some time after it has been produced, by wrapping it in Moistureproof Cellophane. While not, perhaps, important in volume, it is an indication of the attempt of producers and purveyors of foodstuffs to make use of the exceptional qualities of this material.

Textiles offer a big field for Cellophane. Sanitary items such as washcloths, towels, sheets, etc. of good quality, are, many of them, in Cellophane now and these manufacturers are actively interested in its use. Shirts and many other items of dress wear are actively being worked on by the producers of these materials.

So that, at the moment, there is no indication of a lack of ample fields in which to put this material - many of which are very important as to volume - and these activities lead me to feel that we should be able to maintain our present rate of growth at least for another year or so, and as pointed out earlier in this memorandum, a continuation throughout 1931 at this level will require the capacity of the fourth plant to supply the volume during that year.

We have never had surplus capacity. Some of these lines of larger tonnage may develop quickly. At the moment, we are being put to it daily to juggle and manipulate the placing of our orders so as to try to take care of all the trade we are trying to serve and to solicit some of these larger

M-7

and more important lines necessitates having some assurance of productive capacity to take care of them if and as we are successful in adding their requirements to our present volume.

While by no means complete in detail, this will furnish an index of the possibilities of a volume on which effort is being expended at this time that will justify preparation of further productive capacity than is now provided for.

If we can supply anything further of interest along this line, please advise.

Very truly yours,

J. E. Hatt

J. E. HATT
GENERAL MANAGER.

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Note:

Certain of these pages are almost illegible, but have been reproduced here, so that the reader might have some idea of what they are.

DC-10.

GOV'T EXHIBIT NO. 46.
Civil Action 1216

Buffalo, N. Y.,
January 14, 1925.

TO : BOARD OF DIRECTORS
DU PONT CELLOPHANE COMPANY, INC.

FROM: L. A. YERKES
PRESIDENT.

DECEMBER SALES	26,114.13#	@ 2.568	$69,589.09
DECEMBER PRODUCTION	34,257.61#	@ 1.4646	50,458.85
Finished Product Inventory		87,147.00 lbs.	134,146.82
Semi-Finished, in Rolls		56,047.15 "	87,831.45

The December sales were again very disappointing, being smaller than November by a few thousand dollars. The facts are that the candy trade, as well as our jobbers, bought very heavily in October, and the candy business not materializing, they had sufficient material on hand to carry them through the year. All our dealers' sales were off relatively about the same as our own direct sales. We do not look for much improvement until February or March. The following is Mr. Bean's synopsis of the December situation:

"During December we opened up over ninety accounts, a very small percentage of which were in the Candy industry.

"Since August we have opened approximately 600 new accounts.

"Our experience of November as to the slump in buying by the Candy Industry continued during December.

"In addition, we received very little business from the jobbers as they had built up their stock before they became aware of the slump.

" They carried over very little stock however and it is expected they will reach the normal amount of withdrawals weekly shortly after the middle of January.

"An interesting order for window cards for tooth brushes was landed by a box manufacturer with our assistance and if successful will mean a very attractive business for us."

Following you will find a resume' of the conference which Mr. Bean had with the officers of Arthur & Company. This again is not particularly encouraging

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During December Mr. Benz had a conference at Swift & Company's, Chicago, arranged through the medium of a letter which Colonel Sprague addressed to Major Swift. Mr. Benz was enabled to meet and discuss with the proper key men the use of Cellophane in the Packing Industry. The gist of the results was that the cost of Cellophane is too great to permit of its use in such a highly competitive industry, the principal branches of which cited the following facts:

Bacon - This is sold on basis of 1¢ per pound profit. The use of Cellophane would add more than one cent per pound to present production cost.

Lard - Present box with liner costs 1/2¢ each. A direct wrap of Cellophane, without box, would cost over one cent.

Cheese - To displace glassine paper, now used as an outer wrapper for their carton, with Cellophane would represent an annual cost of $100,000.00 as against a present annual cost of $9,000.00.

A complete list of suggestions, stressing the advantages of Cellophane in its possible application to the Industry, has been furnished the Bacon, Sausage and Smoked Meats, Lard, Butterine and Butter and Cheese Departments, following the personal interviews. Generally speaking, we see no nearby prospect of any volume business in this direction.

Since the last meeting we have again discussed the question of a general price reduction, and have decided that it would be wise to make a substantial cut in the price and to make it promptly. At the time the report is being written we are laying plans to make this reduction between now and February 1st. The new base price will be 8¢ instead of 9-3/4¢. We are making several other changes in the new price list which we believe will be to our advantage. We are not reducing the small orders as much as the large ones. For instance, during the month of December we had over 808 accounts which averaged about $40.00. This end of the business we believe not to be attractive, and we are, therefore, endeavoring through our price changes to make the purchase of larger amounts considerably cheaper to the customer. The prices of dyed and embossed Cellophane have also not been reduced in proportion. A detail price list is not available at this time, but will be submitted next month.

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We are planning to take on two new jobbers on the Pacific Coast, which we believe will help our distribution.

only now

We hope and believe, as our agents do also, that this substantial reduction in the price will have a very beneficial effect on our volume.

We have also decided to discontinue manufacturing #285 Cellophane. It has been evident for some time

M833 lb.

that the #255 product is just on the verge of being too thin and we have had a number of complaints of the material breaking out after the packages are wrapped. This is especially prevalent in the winter time due to the heated condition of all buildings. We have found out further that the average #255 which has been imported from France had a tendency to run heavier than #255 Taking everything into consideration, we are confident that the #300 product, which we will call #300, will be a better one to meet American conditions.

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We have sold quite a quantity of Millinery Cellophane, and it is more than possible that the next two months will see quite a volume for this trade.

This report contains the following Exhibits:

1. Statement of Assets & Liabilities as of December 31, 1925.
2. Cellophane Sales by Trade Classification.
3. Cost of Production.
4. Progress Report on Operations.
5. Cellophane Sales (Sales Including Agents and Dealers)

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GOVT EXHIBIT NO. [illegible]
CIVIL ACTION 1216

OPERATIVE IN [illegible]

PERIOD ENDING [illegible] 31, 1954.

	Quantity Sold	Gross Receipts	Per Lb.	Selling Expense	Per Lb.	% of Gross Receipts	Cost of Cello-phane	Per Lb.	% of Gross Receipts	Adminis-trative	Per Lb.	% of Gross Receipts	Net Receipts	Per Lb.	% of Gross Receipts
January	35,827.12	90,008.80	2.515	7,359.99	.205	8.17	48,635.59	1.358	53.99	8,137.24	.227	9.03	25,955.98	.725	28.81
February	17,745.83	44,517.04	2.509	6,885.58	.388	15.47	26,195.25	1.476	58.84	8,318.36	.469	18.68	3,117.85	.176	7.00
March	34,379.98	84,872.62	2.469	7,225.04	.210	8.51	50,257.86	1.462	59.22	9,436.63	.274	11.12	17,953.09	.523	21.15
April	47,954.40	120,262.27	2.508	9,600.04	.200	7.98	77,360.18	1.613	64.33	9,054.35	.189	7.53	24,247.70	.506	20.16
May	61,567.76	153,497.94	2.493	11,093.72	.180	7.23	94,170.32	1.530	61.36	7,879.02	.128	5.13	40,354.88	.655	26.29
June	49,146.27	124,347.77	2.530	10,436.85	.212	8.39	73,932.98	1.504	59.46	4,872.65	.099	3.92	35,106.31	.715	28.23
July	46,908.09	116,173.70	2.477	10,361.78	.221	8.92	75,449.21	1.608	64.96	2,878.15	.061	2.48	27,484.56	.587	23.65
August	44,520.09	111,200.04	2.498	10,904.04	.245	9.81	75,869.69	1.704	68.23	2,899.68	.065	2.61	21,526.63	.484	19.35
September	59,357.78	154,375.79	2.600	12,986.96	.219	8.41	99,988.40	1.685	64.77	2,743.43	.046	1.78	38,657.00	.650	25.04
October	65,455.24	162,959.06	2.490	11,585.09	.177	7.11	102,987.88	1.573	63.20	2,684.84	.041	1.65	45,701.24	.699	28.04
November	31,097.26	74,727.48	2.403	10,702.03	.344	14.32	50,978.44	1.640	68.22	1,536.54	.049	2.06	11,510.47	.370	15.40
December	27,114.13	69,639.97	2.568	9,205.14	.339	13.22	43,614.75	1.609	62.63	1,332.27	.049	1.91	15,487.81	.571	22.24
TOTAL	521,073.95	1,306,062.47	2.507	118,345.24	.227	9.06	819,440.55	1.572	62.71	61,773.18	.119	4.73	307,103.50	.589	23.50

From Private Agmt. of Parties

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OPERATIVE INCOME FROM VESSEL SALES

PERIOD ENDING DECEMBER 31, 1924

	Quantity Sold	Gross Receipts	Per Lb	Cost of Vessels	Per Lb.	Administrative	Per Lb.	Net Receipts	Per Lb.
September	185 000 0	4,625 00	.0250	3,502 90	.0189	82 20	.0004	1,036.90	.0056
October	820,000 0	20,750.00	.0250	11,44[illegible].10	.0139	341 89	.0004	8,962.41	.0109
November	900,000 0	23,750.00	.0250	12,806.00	.0135	488.35	.0004	10,455.65	.0111
December	1,000,000 0	25,125.00	.0250	14,797.60	.0147	480.66	.0004	9,860.74	.0099
TOTAL	2,905,000 0	74,250.00	.0250	42,649.20	.0144	1,393.10	.0004	30,307.70	.0102

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SCHEDULE OF SELLING EXPENSE

Period Ending December 31, 1[illegible]

BUFFALO

	This Month	Last Month	Year to Date
Salaries	307.26	337.76	13,410.21
Traveling	- --	- --	4,587.39
Stationery & Printing	19.56	11.65	519.[illegible]
Telephone & Telegraph	.70	2.82	645.90
Advertising	742.47	800.00	10,400.27
Samples (Transportation Charges Only)	- --	- --	68.01
Sundries	6.91	6.29	376.29
Moving	- --	- --	410.16
Commission paid Fibersilk Company	1,355.71	1,554.86	39,714.46
Cutting and Shipping Expense	- --	- --	3,113.49
	2,432.61	2,713.38	73,146.21

NEW YORK

Salaries	5,143.33	5,150.73	29,469.43
Traveling	945.26	1,703.07	8,284.46
Office Rent (Including Janitor Service)	228.49	554.16	1,957.21
Stationery & Printing	235.91	259.79	1,686.38
Telephone & Telegraph	107.19	98.32	864.37
Advertising	10.00	17.52	393.32
Samples	30.05	30.54	261.06
Sundries	65.76	164.25	932.79
Mercantile Reports & Service	- --	- --	133.33
Moving	- --	- --	645.63
Sales Record	6.14	9.79	570.17
Experiment	.40	.48	.88
	6,772.53	7,988.65	45,199.03
TOTAL	9,205.14	10,702.03	118,345.24

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SCHEDULE OF ADMINISTRATIVE EXPENSE

Period Ending December 31,

	This Month	Last Month	Year to Date
Salaries	804.70	825.39	[illegible]
Traveling	44.15	101.86	90[illegible]
Telephone & Telegraph	13.88	7.92	[illegible]
Stationery & Printing	71.49	66.49	662.62
Directors Fees	275.00	225.00	2,775.00
Directors Traveling	87.45	73.15	677.00
Legal Expense	10.00	67.00	1,258.61
Donations	31.50	- -	355.64
Auditing	- -	- -	
Sundries	58.17	79.[illegible]	
Mercantile Reports & Service	- -	2.00	[illegible]
Moving	- -	- -	[illegible]
Provision for Bad Debts	532.95	57[illegible]	9.[illegible]
Fibersilk Co. Administrative Fee	- -	- -	33,527.[illegible]
	1,812.[illegible]	2,024.89	63,166.28

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EXHIBIT NO. 2

GOVT EXHIBIT NO. 446
Civil Action 1218

CELLOPHANE SALES BY TRADE CLASSIFICATION

DECEMBER 31, 1924.

	This Month	%	Year to Date	%	Aug. 1923 to Jan. 1, 1924	%
Candy & Confectionery	18,822.92	26.85	527,743.24	39.70	150,543.59	40.84
Tobacco Manufacturers	84.99	.12	11,162.95	.84	6,995.95	1.90
Packing Houses	14.58	.02	2,378.11	.18	71.62	.02
Drug Manufacturers	4,548.33	6.49	66,154.07	4.98	5,367.16	1.45
Perfumes, Soaps, etc.	671.56	.96	20,918.10	1.57	727.55	.20
Wadding for Powder Puffs	1,534.00	2.19	22,876.48	1.72	780.87	.21
Cracker & Biscuit Mfgs.	-	-	3,046.41	.23	1,294.38	.35
Envelope Manufacturers	-	-	153.70	.01		
Dealers & Agents	29,163.92	41.59	561,514.20	42.24	187,380.30	50.80
Flowers, Artificial	71.81	.10	7,782.08	.59	268.28	.07
Millinery, Velvet, Braids	6,411.13	9.14	7,521.87	.57	6,220.20	1.69
Bakeries	1,978.75	2.82	5,110.86	.38	387.52	.11
Groceries	503.92	.72	20,329.12	1.53	1,015.61	.28
Novelty Goods	2,034.78	2.90	21,796.52	1.64	3,334.53	.90
Cotton Goods, Threads, etc.	-	-	1,666.34	.13	1,050.11	.28
Nuts & Dried Fruits	215.67	.30	19,540.76	1.47	1,730.96	.46
Gummed Products	-	-	6.12	-	126.77	.03
Hair Dressers	-	-	7,900.64	.59	1,349.15	.37
Department Stores	126.99	.18	2,071.11	.16	170.33	.05
Hosiery	-	-	9.49	-	7.82	.02
Feather Manufacturers	-	-	101.86	.01	18.14	
Film Equipment	80.12	.11	1,422.59	.11	-	
Phonographs, Records, etc.	4.15	-	4.15		-	
Insulation	-	-	3.67	-	-	-
Wrapping Machines	-	-	70.75	-	-	-
Silver Manufacturers	74.97	.11	390.08	.03	-	-
Miscellaneous	2,508.42	3.58	11,354.06	.85	-	
Silk Manufacturers	409.06	.58	1,433.38	.11	-	
Tea & Coffee	68.25	.10	200.65	.01	-	-
Clothing Manufacturers	23.16	.03	49.79	-	-	-
Engraving & Printing	27.05	.04	475.68	.04		
Rubber Dealers	212.63	.30	280.57	.02	-	
Exporters	1,172.60	1.67	3,889.98	.29	-	-
	70,132.48	100.00	1,329,347.00	100.00	368,891.13	100.00

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~~GOVT Exhibit No. 440~~
~~Civil Action 1218~~

From President's Report of 1/4/25

EXHIBIT #8

1924 - CELLOPHANE SALES

Sales Including Agents & Dealers

	NOV.	DEC.
Total Sales (Dollars)	77,106.	71,069.
Number of Accounts	302	262
Number of Invoices	417	405

Sales Excluding Agents & Dealers

Total Sales (Dollars)	40,515.	47,032.
Number of Accounts	298	258
Number of Invoices	377	376
Average per Invoice	107	125

Sales to Agents & Dealers

Brooks	7,027.	104.
Catty	14,110.	10,209.
Euler	4,114.	12,096.
Stewart	11,591.	1,615.
TOTAL	$36,591.	$24,037.

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GOVT EXHIBIT NO. 463
Civil Action 1216

cc Mr. L. A. Yerkes

DU PONT CELLOPHANE

Cellophane is the registered trade mark of the Du Pont Cellophane Company, Inc. for its sheets and films.

DU PONT CELLOPHANE COMPANY, INC.

GENERAL SALES OFFICES
8 PARK AVENUE
NEW YORK CITY

May 14th, 1930;

MR. WALTER S. CARPENTER, JR., VICE PRESIDENT,
E. I. du Pont de Nemours and Co.,Inc.,
Wilmington, Del.

Dear Mr. Carpenter:

Mr. Yerkes has handed me your letter of May 12th to him, discussing the matter of Cellophane prices and their relation to our present position as regards volume and considing also, the varied competitive angles affecting Cellophane.

The suggestion you make of graduated price declines, announced in advance of their effective dates, is a unique one and we believe that such action would affect our immediate position very nicely and that it would accomplish the end we are seeking.

This entire subject has been a matter of discussion with the Executive Committee today and I am arranging to submit a recommendation along this line, as soon as it can be properly worked out in the next few days, varying only in slight detail from your suggestion. Inasmuch as our sales prices are quoted on a basis of 1,000 square inches, it so happens that a decline of approximately $.05 per pound figures $.0025 per 1,000 square inches, and we should like to maintain our schedules of prices on these various units using nothing less than $.0025 in our fractions quoted.

For this reason, we believe a $.05 per pound decline on June 1st., together with another $.05 decline on August 1st., and still a third $.05 decline on October 1st., to be announced simultaneously together with a letter of detailed explanation to the trade that this is in conformity with our policy of reducing prices as volume permits, will best fit our detailed needs, and at the same time, utilize the principle of the suggestion you have made.

This would contemplate a total reduction of $.15 per pound on Regular Cellophane, and based on April earnings, would reduce our April net of $.373 per pound to $.223 per pound. Our percent of return on the yearly basis for April was

SELL IT FASTER THRU CELLOPHANE

M 746

DUPONT CELLOPHANE

Cellophane is the registered trade mark of Du Pont Cellophane Company, Inc. to denote its transparent cellulose sheets and films.

DU PONT CELLOPHANE COMPANY, INC.

GENERAL SALES OFFICES

1 PARK AVENUE

NEW YORK CITY

52.58% - at least one-half of which was contributed by Moistureproof Cellophane.

Without the benefit of any increased tonnage which price reduction will undoubtedly make possible, and disregarding Moistureproof Cellophane - which according to our plans will probably be reduced less than Regular, we should have a return of 32.1% when these declines have been accomplished.

Also, not reducing Moistureproof proportionately with this decline on Regular, and allowing for the increased total volume, we shall undoubtedly have a higher return than this.

We believe that such an announcement at approximately the end of this month advising declines on June 1st., August 1st., and October 1st., on Regular Cellophane only, will perhaps accomplish all the points set forth in your letter and we are rather anxious to try out this plan to see what the effect of such a price procedure may be. It is entirely apparent that it cannot cause us any particular injury and it will definitely mark at least, the level of Regular Cellophane prices so far as the consideration of this feature is important to prospective competition.

As soon as I have had an opportunity to prepare the kind of advice that I expect to send to the Executive Committee with a recommendation for its approval, I will send a copy to you for your further comments.

In the meantime, be assured of our fullest appreciation of your interest in this rather difficult problem of ours.

Very truly yours,

J. E. Hatt

J. E. HATT
GENERAL MANAGER.

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SEE IT FASTER THRU CELLOPHANE

GOV'T EXHIBIT NO. 422
Civil Action 1226

DU PONT CELLOPHANE
REG. U.S. PAT. OFF. AND CANADA

Cellophane is the registered trade mark of Du Pont Cellophane Co. Inc. designating its transparent sheet and other sheets and films.

DU PONT CELLOPHANE COMPANY, INC.

GENERAL SALES OFFICES
2 PARK AVENUE
NEW YORK CITY

May 26, 1930

TO OUR CUSTOMERS:

PRICE REDUCTION - REGULAR CELLOPHANE

Since beginning the manufacture of CELLOPHANE, we have consistently reduced the price of our product as rapidly as increased volume of production and sales permitted. This policy has made CELLOPHANE available in many industries and for many purposes where former prices had prevented its use.

The construction of new and larger CELLOPHANE Plants was recently announced and this new production will be available in increasing quantities during the next several months.

Accordingly, we announce price reductions on Regular CELLOPHANE, effective on dates listed below:

		#300 Thickness Per 1000 sq. in.	(Regular Per Pound
May 26th	REDUCTION	$ .0025	$ .05
August 1st	"	.0025	.05
October 1st	"	.0025	.05

THE NEW PRICE LIST CONTAINS FULL DETAILS

With the completion of this schedule, the price of Regular CELLOPHANE will be but 25% of the price when we began manufacture, reflecting the eleven price reductions in the past six years.

During the past two years we have developed Moistureproof CELLOPHANE which has distinct and unusual qualities in the protection and preservation of certain types of products.

Increased production of Moistureproof CELLOPHANE will be available shortly. Our price policy on this material is the same as on the Regular product. It is our intention to reduce prices on Moistureproof CELLOPHANE just as rapidly as conditions of manufacture enable us to do so.

This announcement is made at this time and in this manner to give both old and new users of CELLOPHANE a definite basis on which to consider its use on new and present items that need the advantages of a CELLOPHANE wrap.

Tell us on the card enclosed how we may serve you. You incur no obligation.

Very truly yours,

C. F. Berry

DIRECTOR OF SALES

"SELL IT FASTER THRU CELLOPHANE"

M 1928

GOVT EXHIBIT NO. 428
Civil Action 1216

DU PONT CELLOPHANE

DU PONT CELLOPHANE COMPANY, INC

GENERAL SALES OFFICES
2 PARK AVENUE
NEW YORK CITY

IMPORTANT ANNOUNCEMENT - PRICE REDUCTION

REGULAR AND MOISTUREPROOF CELLOPHANE

AUGUST 1, 1930

Effective on this date, a reduction of 10 cents per pound - 1/2 cent per thousand square inches - will be made on MOISTUREPROOF CELLOPHANE. This is made possible by the wonderful acceptance of this material by the entire cigar industry and the indicated adoption by the meat, frozen food and other fields.

And on REGULAR CELLOPHANE, instead of the reduction of 5 cents per pound or 1/4 cent per thousand square inches previously announced - it becomes possible to make this 10 cents per pound or 1/2 cent per thousand square inches. This does not affect the further reduction on REGULAR CELLOPHANE already announced for October first.

Copy of new price list is enclosed.

The use of CELLOPHANE is thus made more profitable than ever. It comes at just the right time to consider giving this unusual sales appeal to new items that you may be planning for Fall ... the Holidays ... or 1931 ... as well as to products in your present line.

Our Package Development Department will gladly work with you in adapting CELLOPHANE to your merchandise. Send in samples, and suggested packages will be submitted to you without obligation.

Very truly yours,

DIRECTOR OF SALES.

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"SELL IT FASTER THRU CELLOPHANE"

GOVT EXHIBIT NO. 472
Civil Action 1236

DU PONT CELLOPHANE

Cellophane is the registered trade mark of Du Pont Cellophane Co., Inc. for its transparent cellulose sheets and films.

DU PONT CELLOPHANE COMPANY, INC.

GENERAL SALES OFFICES
3 PARK AVENUE
NEW YORK CITY

September 30, 1930

IMPORTANT ANNOUNCEMENT

Price Reduction
on CELLOPHANE
as of October 1, 1930.

Moistureproof CELLOPHANE is reduced ten cents per pound or one-half cent per thousand square inches. This follows closely the reduction of August 1st and is due to the remarkable acceptance of this product, a patented and exclusive du Pont achievement in the processing of cellulose.

Regular CELLOPHANE is reduced five cents per pound or about one-quarter cent per thousand square inches as was previous announced would be effective October 1st.

In 1924 Regular CELLOPHANE cost $2.50 per pound -- today $.60 -- another achievement of the du Pont production and technical organization plus an increasing use of the product. Improvements in manufacture and the economies possible due to volume, all have helped to bring about the present low prices of CELLOPHANE.

The tendency of manufacturers to show the quality of their product to the public is growing and CELLOPHANE proves an admirable medium to use. Then too, there is quality, cleanliness and protection which means a quicker acceptance by buyers and greater sales for the manufacturer who uses CELLOPHANE.

As an aid to your consideration of CELLOPHANE at these new low prices for new items you plan to release - as a sales stimulant for your present products or to develop gift packages, we offer the co-operation of our Package Development Department. They will endeavor to give you some new and interesting suggestions for packaging to meet your particular requirements. This service is without obligation.

Let us know on the attached card, just what we can do to assist you in using CELLOPHANE on your products.

Very truly yours,

Director of Sales.

"SELL IT FASTER THRU CELLOPHANE"

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GOV'T EXHIBIT NO. 1458
Civil Action 1216

THIS AGREEMENT made and entered into this [illegible] day of January, A. D. 1923, by and between E. I. duPONT de NEMOURS & COMPANY, a corporation of the State of Delaware, party of the first part, and AMERICAN VISCOSE CORPORATION, a Delaware corporation, on its own behalf, and on behalf of the individuals and corporations with whom it is associated, party of the second part,

WITNESSETH THAT

WHEREAS, the party of the second part represents that it and its associates are connected and identified with the business of manufacturing "cellophane", a viscose product, and that it and/or its associates are operating a plant or plants in the Republic of France, and are engaged in the manufacture of cellophane upon a commercial scale under a process which is protected by patents in the United States of America, and elsewhere throughout the world where said process is used, the validity of which patents, however, the party of the second part does not guarantee;

AND WHEREAS, the party of the first part, and the party of the second part are desirous of organizing a corporation for manufacturing cellophane under said process in the United States, provided that such manufacture and sale can be carried on at a cost which will insure satisfactory yields and profits;

AND WHEREAS, the party of the first part desires to more fully acquaint itself with said process and to determine the cost of constructing a plant for the manufacture of cellophane, and the cost of manufacturing said product in said plants, with a view to the organization of a corporation for the purpose of constructing said plant and engaging in such business, as hereinafter provided;

AND WHEREAS, the party of the second part has agreed to supply the party of the first part with such information with reference to said process, the cost of construction of any such

plant, the cost of manufacturing under said process, and the amount of capital necessary in order to enter said business, as shall be reasonably necessary in order to permit the party of the first part to come to an intelligent conclusion concerning said details.

NOW, THEREFORE, in consideration of the premises, and in consideration of the mutual covenants herein contained, the parties hereto have agreed, and by these presents do agree, with each other as follows:

1. Promptly upon the execution of this agreement, the party of the second part shall cause to be transmitted to the party of the first part, such information, knowledge and data relating to the operation of said process, the cost of construction of its plant, the yields obtained in the course of manufacture, and such other data and information as the party of the first part may require in order to enable it to determine whether or not the business of manufacturing sulphone in the territory comprised by the entire North American continent and the Central American countries can be carried on at such costs as shall insure an adequate return on the capital invested, and the party of the second part shall permit the party of the first part, through its authorized representatives chosen for that purpose, to inspect all Letters Patent and patent rights, either American or foreign, in any way relating to said process, and shall advise and assist the party of the first part, by all possible and practical means, to the end that a full and complete study of the entire subject shall be had. Such information as is not available in the United States shall be communicated to chosen technical representatives of the party of the first part, which representatives shall spend such time in France,

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or other European countries or in such process shall be in operation, as shall be necessary to fully and completely cover the subject.

2. The party of the first part shall proceed with diligence to study the data and information submitted to it by the party of the second part, and as soon as sufficient knowledge has been acquired to make an intelligent election possible, and in no case more than four (4) months from the date hereof, the party of the first part shall elect whether or not it desires to enter into the business of manufacturing and selling cellophane, and whether or not it elects to organize a corporation for that purpose, as hereinafter provided, which election shall be communicated by the party of the first part to the party of the second part in writing.

3. If the party of the first part shall decide not to engage in said business, and not to organize the corporation, as herein provided, it shall have the right to so elect, and shall not be required to state to the party of the second part the reasons upon which its election is based, but in the event of any such election the party of the first part, its successors or assigns, or any existing or future corporation controlled by it, shall not, for the period of Five (5) years, engage in, or become directly or indirectly interested in any business or enterprise in North or Central America engaged in the manufacture of any viscose product similar to cellophane, or used for the same purpose, either as stockholder, employee, principal or agent, or in any other capacity, and the party of the first part further agrees to use its best efforts to restrain any of its officers or directors, or the officers or directors of any corporation controlled

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by it, from in any manner using, or attempting to use, directly or indirectly, any information, memoranda, notes or data obtained by them, or any of them, on account of the execution of this agreement. The party of the first part shall procure from each of its representatives making said investigation an agreement in writing to keep any and all information obtained in the course of said investigations strictly secret and confidential. In the event that after the making of such investigations, the party of the first part shall not proceed with the organization of the corporation herein provided for, then, and in such event, all memoranda, notes and written data gathered by the party of the first part, or its representatives, shall be delivered and surrendered to the party of the second part.

4. If the party of the first part shall decide, after having completed its study of the process aforesaid, its estimation of cost of construction, production costs, etc., that said business can be profitably carried on in the territory aforesaid, and shall notify the party of the second part, in writing, of its election to engage in said business, then a corporation shall be organized within the United States, and under the laws of the State of Delaware, for the purpose of engaging in the business of manufacturing and selling telephones throughout the territory comprised in the North American continent and Central American countries, which corporation shall have such capital, not to exceed One Million Dollars ($1,000,000), as shall be necessary to accomplish the purpose of its organization. The party of the first part shall supply 52/60s of the cash required by said corporation, but not to exceed $2/60s

CQ 41-3

of One Million Dollars ($1,000,000), and the party of the second part shall supply 5/8ths of such cash requirements.

5. In consideration of the such capital contributions of the parties hereto, as provided in the last preceding section, as well as the transfer to the corporation by the party of the second part of such patents, patent rights, trade, information, etc., as shall be sufficient to enable the corporation to accomplish the purpose of its organization, fifty-two per cent. (52%) of the entire capital stock of said corporation and of each and every class thereof, shall be issued to the party of the first part, and forty-eight per cent. (48%) of such entire capital stock shall be issued to the party of the second part; provided, however, that nothing contained in this section shall be construed to obligate either party hereto to subscribe for any new or additional capital stock of such corporation should such capital stock be increased to an amount in excess of One Million Dollars ($1,000,000).

6. Promptly upon the organization of such corporation, the party of the second part shall transfer, or cause to be transferred, to such corporation such title in and to the process aforesaid, and such title to all patents, patent rights, trademarks, good-will, knowledge, information, data and matters and things whatsoever as shall be necessary in order to give such corporation an unqualified, unrestricted and exclusive right to use said process, and to manufacture said product within the territory comprised in the North American continent and Central American countries, (this right, however, not to extend to the right to manufacture cellophane for use in the production of photographic and motion picture films, which right is hereby expressly reserved from the operation of any of the provisions of this agreement),

it being understood and agreed, however, that the party of the second part does not guarantee the validity of any patents, patent rights, etc., which may become subject to the terms hereof.

7. The corporation shall immediately after its organization and payment into its Treasury of such cash capital as it shall require to commence its business, and after acquiring title to the process aforesaid, together with the various rights incident thereto, proceed with all promptness and dispatch to construct a viscaloid plant on such site, and in such locality within the United States as its Board of Directors may determine, which plant shall have an estimated daily production of three thousand (3,000) pounds, and immediately upon the completion of said plant, and the commencement of the manufacture of cellophane, such corporation shall actively engage in selling cellophane throughout the North American continent and Central American countries, or such portion of said territory as it shall see fit to develop from time to time.

8. From the date of the incorporation of said corporation, the party of the second part shall cease to market, sell, or in any manner offer for sale, either directly, or through any agency, except such new corporation, any cellophane within the territory aforesaid, but such corporation shall act as the agent of the party of the second part for the purpose of supplying its customers within the United States, or any other portion of said territory until such time as the corporation shall be in a position to

supply said customers, after which time such customers shall become the customers of the new corporation.

9. In the event that said corporation shall be organized, and shall in due course proceed with and conduct the business of marketing cellophane, then, and in such event, neither the party of the first part, nor the party of the second part, or its associates, including La Cellophane, or any corporation controlled by any of them, shall (subject, however, to the right of the party of the second part to manufacture motion picture films under the reservation provided in Section 6 hereof) prior to December 31, 1935, engage in or become directly or indirectly interested in any other business or enterprise on the North American continent or in Central America engaged in the manufacture of cellophane either as stockholder, principal or agent, or in any other capacity.

10. The Certificate of Incorporation of said new corporation, if it shall be organized, shall contain the following provisions:

(a) That there shall be eleven (11) directors; that at all elections of directors of such corporation each holder of common shares shall be entitled to as many votes as shall equal the number of his shares of stock, multiplied by the number of directors to be elected, and he may cast all of such votes for a single director, or may distribute them among the number to be voted for, or any two or more of them, as he may see fit.

(b) That no bonded indebtedness or indebtedness secured by mortgage, lien, encumbrance, or other charge upon any part of the property of the corporation shall be created without the consent of the holders of at least seventy-five per cent. (75%) of the common stock of the corporation, given either in writing, or at a regularly called meeting for that purpose. This prohibition shall not operate to prevent the giving of purchase money mortgages, or other purchase money liens, on property to be hereafter acquired by the corporation, nor the execution of corporate indebtedness in the regular course of business.

CQ 41-3

(c) That the common capital stock of the corporation shall not be increased or reduced, nor shall the corporation change the right of the holders thereof, or enlarge the issue of any other class of stock which shall be entitled to participate in the profits of the corporation, or exercise any voting power, except that the corporation may, upon the affirmative vote of a majority of the outstanding common stock of the corporation, issue a class of non-voting stock, in the manner provided by law, entitled to a fixed rate of dividend not in excess of eight per cent. (8%) cumulative, and in the event of the liquidation, dissolution or winding up of the corporation, whether voluntary or involuntary, such non-voting stock shall entitle the holders thereof to be paid in full the par amount of their shares with all unpaid accumulated dividends thereon, to the date of such payment, before any amount shall be paid to the holders of the common stock.

The number of the membership of the Board of Directors shall not be increased or reduced without the affirmative vote of at least seventy-five per cent. (75%) of the entire outstanding common stock of the corporation given either in writing or at a regularly called meeting for that purpose.

(d) That the Board of Directors shall, except as otherwise provided by law, at its option have power to act in the following manner: a resolution in writing, signed by all of the members of the Board of Directors, shall be deemed to be action by said Board, to the effect therein expressed, with the same force and effect as if the same had been duly passed by the same vote at a duly convened meeting, and it shall be the duty of the Secretary of the corporation to record such resolution in the Minute Book of the corporation under its proper date.

(e) That no proceedings shall be taken pursuant to statute, or otherwise, for the dissolution of the corporation, or for the discontinuance of its business, or for the sale, or other disposition of any substantial part of its capital assets, without the affirmative vote of at least seventy-five per cent. (75%) of the entire outstanding common capital stock of the corporation given either in writing, or at a meeting regularly called for that purpose.

None of the above mentioned specific provisions of the Certificate of Incorporation shall be repealed or amended without the affirmative vote of at least seventy-five per cent. (75%) of the entire outstanding common capital stock of the corporation given either in writing, or at a meeting regularly called for that purpose.

11. It shall be provided in the By-laws of said new corporation, should the same be organized, as hereinafter provided, that said corporation shall not enter into,

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or incur any contract, or other obligation, with the party of the first part, or any of its affiliated companies, or the party of the second part, or any of its affiliated companies, for the purchase of land, buildings, machinery, supplies, materials, rendition of services, or any other matter requiring the expenditure of money involving a total expenditure of more than Ten Thousand Dollars ($10,000), nor shall any contract of employment be made under which any employee of such corporation shall receive a yearly salary of more than Ten Thousand Dollars ($10,000), unless any such contract or other obligation shall be authorized by the affirmative vote of at least seven directors.

14. The party of the second part shall cause to be furnished to the new corporation all necessary information to enable the corporation to proceed to construct and operate its said plants and to enter into the business of the manufacture of cellophane. It will also cause to be furnished such technical men as may be necessary for that purpose, who shall receive a reasonable compensation, but in no event greater than compensation usually paid to men doing similar work in the United States. In addition, the corporation will pay to such technical men a reasonable amount to cover travelling expenses and expenses to which they may be subjected, due to temporary change of residence. Such technical men shall not be obliged to remain in the employ of the new corporation any longer than their services shall be required for the purposes hereinabove indicated.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed by their proper officers, and their respect-

ive corporate seals to be affixed on the day and year first above written.

E. I. duPONT de NEMOURS & COMPANY,

By W C Spruance
Vice President.

Attest [illegible]
Secretary.

ARENA TRADING CORPORATION,

By [illegible]
Vice President & Secretary.

C M S [illegible]
Development department
[illegible]

Trans.
[illegible]

GOV'T EXHIBIT NO. 1459
Civil Action 1216

Wilmington, Delaware
November ~~30,1922~~
29, 1922

TO: EXECUTIVE COMMITTEE

FROM: W.C.SPRUANCE, V.P.

Copy to: Dr.F.Sparre

THE MANUFACTURE OF CELLOPHANE IN THE U.S.

At a conference in New York yesterday with Mr.Albert Blum, Director of the DuPont Fibersilk Company and Treasurer of the United Piece Dye Works, Mr. Blum discussed at length the developments subsequent to the conferences a year ago between the representatives of the DuPont Company and Messrs. Gillet and Bernheim. As a result of which no definite conclusions were reached with reference to the development and manufacture of cellophane in the United States.

Mr. Blum asked me to ascertain whether the DuPont Company would be interested in forming an American company to manufacture and sell cellophane in the United States in partnership with the French owners of the process, the American patent rights,etc., a company to be formed with 100,000 shares of stock of no par value, of which 40,000 shares would be distributed to the French interests for complete rights, patents,etc. in the United States and all information necessary to erect and operate a complete plant for the manufacture of cellophane, 50,000 shares to be subscribed to by DuPont and 10,000 shares to be subscribed to by the French interests to provide the total estimated capital required for the development, viz. $1,000,000; that is to say 5/6 of this cash requirement to be provided by DuPont and 1/6 by the French interests in return for 50,000 and 10,000 shares respectively, this plan resulting in stock control and ownership divided equally; i.e. 50,000 shares each to the DuPont and the French interests respectively. The estimated total cash requirement of $1,000,000 is considered to be sufficient to permit the building of a two-machine cellophane manufacturing unit capable of producing between 500,000 and 1,000,000 lbs. of finished cellophane per year when supplied with viscose solution identical with that produced for the manufacture of duPont Fibersilk. There are several reasons why the French interests cannot, at the outset at least, arrange matters so as to handle the proposition with the DuPont Fibersilk Company, but they feel that the most economical and mutually satisfactory working arrangement would be to erect the proposed cellophane plant on part of the unused portion of the DuPont Fibersilk Company's property at Buffalo and have the Cellophane Company buy the viscose solution from the DuPont Fibersilk Company. Such a plan would involve increasing the chemical building and viscose solution portion of the Fibersilk Company's plant to the extent that they could not provide with their present equipment an increased

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quantity of viscose solution approximately equivalent to one-third more than the solution capacity figured for the total fibrilk plant when the addition now under consideration is completed.

I understand that the French interests are prepared, if such a proposition is attractive to the DuPont Company, to prove to our satisfaction that their patent protection is ample and full access to their French plants for the purposes of investigation and confirmation of their claims, etc. would be a part of the negotiations leading to any final arrangements. I was advised that after attempts by German interests to develop the manufacture and sale of cellophane in Germany the outcome has been the formation sometime ago of a German cellophane company in which the German interests put up all the capital and in return for the German rights and construction and operating information, the French received a 60% interest in the German Company.

I was informed that since January 1, 1922 the French had been selling to a single firm, viz. Birn & Wachenheim, cellophane for distribution to the American trade, these sales in the United States having averaged 900 kilos per day. This sales arrangement expires this year and for 1923 Birn & Wachenheim have been attempting to negotiate a continuance at the rate of 800 kilos per day.

I was further informed that the French interests estimated the average cost per pound of cellophane was about 15¢ less than the average cost per pound of artificial silk and that based on established selling prices in the United States and probable cost of manufacture in a plant in the States, a minimum net profit of $1.25 per pound could be expected on a volume of business which in their opinion was readily obtainable in the American market.

It is their further idea that pending the erection and commencement of operation of a manufacturing plant, the American trade could be supplied by the new company selling cellophane manufactured in their French plants, though the quantity so available would be limited as they say their present capacity can be disposed of without difficulty in the French market under existing and prospective conditions.

Mr. Charles Gillet is still in this country but expects to return home as soon as this matter assumes definite shape, so I suggest that the Committee consider the matter at today's meeting with Dr. Sparre and Mr. Pickard present with a view to indicating what sort of a preliminary proposition or proposal could be drafted by Mr. Blum and the French interests for definite consideration by the DuPont Company on or before December 8th, when these gentlemen will be in Wilmington to attend the regular meeting of the Board of Directors of the DuPont Fibrefilk Company.

Respectfully submitted

WCS/D

W. C. SPRUANCE, V.P.

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